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# DNV HEALTHCARE CHINA

## PROVIDING SUSTAINABLE PORK SAFETY FOR CHINA

**Bachelor of International Marketing**

**BI Norwegian Business School**

**Fudan University**

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*This thesis is conducted as a part of the undergraduate program of BI Norwegian Business School. This does not imply that the methods applied, the results presented, nor conclusions drawn, are verified by BI Norwegian Business School, or Fudan University*

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*Shanghai, May 16<sup>th</sup> 2011*

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## Executive Summary

Four International Marketing students on the behalf of DNV Healthcare China, a Norwegian risk management provider, conducted this thesis. The authors used an exploratory research design, and most of the acquired data is collected from secondary sources.

The aim of this study was to characterize the Chinese pork safety market and give strategic recommendations on how DNV Healthcare can position itself in order to become the obvious choice among risk management providers within this particular market. One of the main challenges for DNV Healthcare was to develop an appropriate strategy that does not conflict with their overall communication to the Chinese market, as they currently do not offer pork safety services in China.

Currently, there are several shortcomings within the Chinese pork safety market, where the major problems are governance issues, lack of standards, and implementation and overseeing of such standards. Recent incidents of tainted pork have increased customer awareness, which again have resulted in a growing market opportunity within the pork safety industry.

Based on both external and internal analyses conducted in this thesis, the authors concluded that entering the Chinese pork safety market through a strategic alliance would be most beneficial for DNV Healthcare.

The final part of this thesis includes several recommendations on how DNV Healthcare should enter this new market, which positioning- and marketing mix-tools they can derive benefit from and implications on *what* they should communicate.

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# Thesis Overview

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## Abbreviations

<b>BSI</b>	British Standards Institution
<b>CNHDRC</b>	China National Health Development Research Center
<b>CP</b>	Competitive Parity
<b>CR</b>	Corporate Responsibility
<b>CSF</b>	Critical Success Factor
<b>CSR</b>	Corporate Social Responsibility
<b>CSTC</b>	China Standard Technology Development Corporation
<b>DNV</b>	Det Norske Veritas
<b>DNVFS</b>	DNV Food Safety
<b>DNVHC</b>	DNV Healthcare
<b>DNVSC</b>	DNV Sustainable Development Centre
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>GEF</b>	Global Employees Forum
<b>HR</b>	Human Resources
<b>MIP</b>	Management of Individual Performance
<b>MOH</b>	Ministry of Health
<b>NIAHO</b>	National Integrated Accreditation for Healthcare Organizations
<b>NOK</b>	Norwegian Kroner
<b>POD</b>	Points-of-Difference
<b>POP</b>	Points-of-Parity
<b>R&amp;D</b>	Research and Development

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<b>R&amp;I</b>	Research and Innovation
<b>RMB</b>	Renminbi, official currency of the People’s Republic of China
<b>RQ</b>	Research Question
<b>PR</b>	Public Relations
<b>SCA</b>	Sustainable Competitive Advantage
<b>SME</b>	Small- and Medium-sized Enterprise
<b>SOE</b>	State-Owned Enterprise
<b>SPD</b>	Strategic Problem Definition
<b>TCA</b>	Temporary Competitive Advantage
<b>TÜVHS</b>	TÜV Healthcare Specialists
<b>UK</b>	The United Kingdom
<b>USA/US</b>	The United States of America
<b>WTO</b>	World Trade Organization

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## Definitions

**Cold chain system:** refrigerated trucks that maintain the quality of meat while transporting.

**Clenbuterol:** a synthetic drug used in the treatment of asthma and other respiratory diseases and in veterinary medicine, most commonly used when treating horses. It also promotes the growth of muscle, meaning it burns fat faster.

**Hog:** a domesticated pig, especially over 120 pounds (54 kg) and reared for slaughter.

**Pig:** a domesticated swine, not yet sexually mature, that is kept for its meat.

**Piglet:** a young pig.

**Pork:** the meat of a pig used as food, especially when uncured, and that is characterized as red meat.

**Sow:** an adult female swine that is used for reproduction.

**Wet market:** a live animal market.

The authors also chose to define words used in the problem definition, in order to make it easier for the reader.

**Exploit:** make full use of and derive benefit from.

**Leading:** to be the obvious choice among risk management providers in the potential clients' evoked set.

**Risk Management Provider:** identify, assess, and prioritize risks in order to minimize, monitor, and control the probability and/or impact of unfortunate events, or to maximize the realization of opportunities.

**Strategy:** an action plan designed to achieve a company's goals.

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## Part I – Introduction

### Chapter 1: Introduction to the thesis

The increasing demand for food safety in China provides for a growing market opportunity within the food safety industry. Det Norske Veritas Healthcare (DNVHC) wants to pursue this opportunity, particularly in the pork safety market. This market is, due to arising pork safety incidents, in need of standards and overseeing throughout the supply chains. Because DNVHC currently is not in the food safety market, their challenge is to find a suitable positioning strategy that is suitable with DNVHC's overall strategy.

#### 1.1 Statement of the Problem

*What strategy can DNV Healthcare exploit to position itself as the leading risk management provider in the Chinese pork safety market?*

#### 1.2 Research Aim

Geir Gripsrud, Ulf Henning Olsson and Ragnhild Silkoset claim that the research aim usually consists of two parts: mapping out the factors that influence the symptom that is researched, and which actions to choose<sup>1</sup>. The research aim should be formulated in a single sentence, where the purpose and objectives are stated. Several research questions should then be formulated, that together specify what the authors need to answer in order to achieve the objectives of the research<sup>2</sup>. The research aim of this bachelor thesis is as followed:

*To find out which characteristics of the Chinese pork safety market that are important for DNV Healthcare to consider when entering this new market, and what positioning strategy that will be most beneficial.*

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<sup>1</sup> Gripsrud, Olsson and Silkoset. 2008: 47

<sup>2</sup> Gripsrud, Olsson and Silkoset. 2008: 48

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## 1.3 Research Questions

To be able to answer the problem statement and research aim precisely, the authors made four research questions (RQs) to help make the work as structured and efficient as possible. These are as followed:

RQ1: *How is the pork safety market in China structured, and are there any international market trends that can be expected to influence the development of this market in China?*

RQ2: *What is the current competitive situation in the Chinese food safety market?*

RQ3: *What market obstacles can DNVHC expect to encounter when entering the Chinese pork safety market?*

RQ4: *What are DNVHC's competitive advantages and what can DNVHC do in order to keep them sustainable?*

## 1.4 Research Limitations

Pork safety is rarely researched individually; hence some of the secondary data are findings on food safety for red meat or for agricultural products in general.

DNVHC China does not have an office in Shanghai, which has been a challenge because of limited communication. The email correspondence with the authors' contact person in Beijing has been slow. This resulted in a limitation of information-sharing, beyond what was given when the authors had the privilege to visit the DNV Sustainability Centre (DNVSC) in Beijing, which they did twice.

DNVHC's policies for giving out internal information were highly restricted by confidentiality regulations. This was especially a limitation when collecting financial key numbers for DNVHC. For this reason, the authors had to base their financial evaluation of DNVHC on figures from the annual report from 2009 for Det Norske Veritas (DNV) globally. Also, the newest annual report available is from 2009, as the numbers from 2010 are not published yet.

The language barrier in China can sometimes be extensive. When doing the competitor analysis, the authors found it difficult to obtain the necessary information, due to the fact that many websites are only in Chinese. This was especially the case when gathering information about the company called CHINATRACE.

## Chapter 2: Company Background

In order to facilitate the reader with a broader understanding of DNV's company structure, this chapter will encompass an overview of the different divisions that is relevant to this thesis.

### 2.1 Det Norske Veritas

DNV is an independent foundation established in Norway in 1864, and is today a global provider of services within risk management and sustainability solutions for customers across countries and industries. Their service portfolio includes assessment, consulting, technological qualification, materials, technology and testing, verification, training, and so on. DNV takes an independent and impartial third-party role in projects within industries such as maritime, oil, gas and energy, food and beverage, and healthcare. With their headquarters located outside of Oslo, DNV comprises 300 other offices in 100 countries, and by the end of 2009, they had 8,866 employees<sup>3</sup>.

The DNV purpose is to *safeguard life, property and the environment*. Their vision is: *Global impact for a safe and sustainable future*. DNV presents four core values of their business<sup>4</sup>:

- We build trust and confidence
- We never compromise on quality or integrity
- We are committed to teamwork and innovation
- We care for our customers and each other

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<sup>3</sup> [http://www.dnv.com/moreondnv/profile/about\\_us/](http://www.dnv.com/moreondnv/profile/about_us/)

<sup>4</sup> <http://www.dnv.com/moreondnv/profile/pvv>



## **2.2 DNV Food Safety**

*Don't just say it. Certify it.*

DNV Food Safety (DNVFS) provides services to improve food quality, safety and sustainable practices and offer several internationally acknowledged standards to their clients. Their knowledge addresses food safety in every step of the value chain; from farm to consumer, in order to prevent failures. DNVFS wants their customers' products to satisfy quality- and safety standards, which will make a positive impact both environmentally and socially<sup>5</sup>.

DNV currently does not have a Food Safety unit in China, but they have extensive knowledge and expertise within this area internationally.

## **2.3 DNV China**

The first DNV office in China was established in 1988. As the world-leading provider of risk management and sustainability solutions, they have ever since their establishment been committed to the sustainable development of the country. Today, there are approximately 900 employees working at 36 offices in China.

DNV's key services in China are project risk management, wind power development support, energy efficiency, corporate social responsibility, healthcare, and sustainable financial instruments. DNV has assisted several of China's central government bodies and private sector companies in setting up and implementing sustainability standards and practices<sup>6</sup>.

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<sup>5</sup> [http://www.dnv.com/industry/food\\_bev/services\\_solutions/food\\_safety/index.asp](http://www.dnv.com/industry/food_bev/services_solutions/food_safety/index.asp)

<sup>6</sup> [http://www.dnv.com/press\\_area/press\\_releases/2009/dnvsustainabilitycentreopensinbeijing.asp](http://www.dnv.com/press_area/press_releases/2009/dnvsustainabilitycentreopensinbeijing.asp)

## 2.4 DNV Sustainable Development Centre

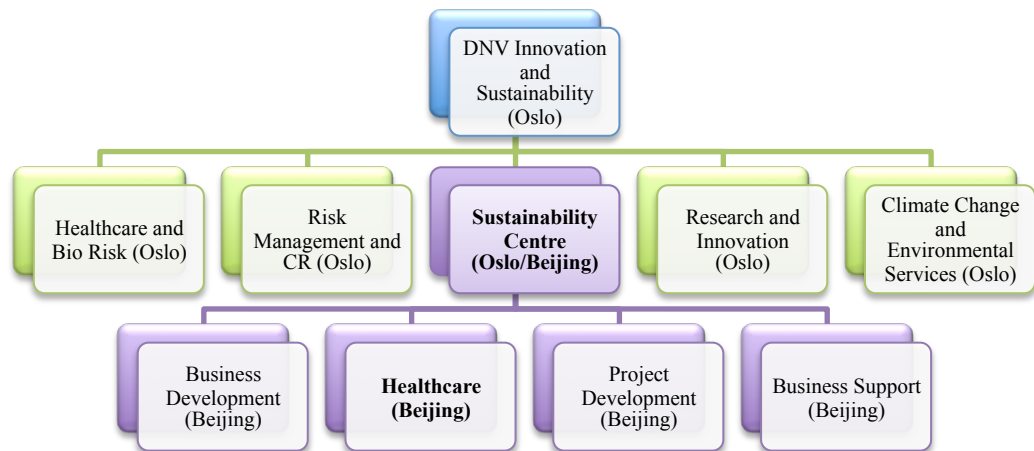


Figure 1: DNV Sustainability Centre Organizational Chart

In June 2009, DNV created a business unit in Beijing called the Sustainable Development Centre, also known as the Sustainability Centre. DNVSC was established as a strategic unit, in order to better meet the growing need for sustainable development projects in China. Their customers are governmental organizations, state-owned enterprises (SOEs) and private sector companies. The Managing Director of DNVSC, Per Marius Berrefjord, said the following:

*We want to be strongly present with relevant services here in Beijing, where these customers are headquartered. And we are getting the right response from the market<sup>7</sup>.*

DNVSC aims to utilize and adapt their leading scientific risk approach and global implementation to a Chinese context. They wish to provide decision-making support and facilitate sustainable performance of big projects in China<sup>8</sup>. The Sustainability Centre will provide services to support China's long-term development in social, economic and environmental aspects. The goal for DNVSC is to expand its manpower from ten at the opening in 2009, to 200 within

<sup>7</sup>

[http://www.dnv.co.kr/resources/publications/dnv\\_forum/2009/forum\\_2\\_2009/RampingupinBeijing.asp](http://www.dnv.co.kr/resources/publications/dnv_forum/2009/forum_2_2009/RampingupinBeijing.asp)

<sup>8</sup>  
[http://www.dnv.com/press\\_area/press\\_releases/2009/dnvsignsagreementforchinahealthcareresearch.asp](http://www.dnv.com/press_area/press_releases/2009/dnvsignsagreementforchinahealthcareresearch.asp)

the five coming years<sup>9</sup>. As of May 2011, there are 34 employees at DNVSC.

The recent trend in China has been that the government increasingly creates standards for national companies, and DNV has taken a role as a facilitator of national targeted goals, especially those related to sustainability. In a press release from 2009, Mr. Berrefjord concluded that:

*In the case of China, we find that so many of the sustainability services in DNV's portfolio are applicable to Chinese practices. This unique dynamic of change in China convinced us that the creation of the DNV Sustainability Centre is the best platform for DNV as a group to expand our customer-service focus here to more of a country-service focus for China<sup>10</sup>.*

## 2.5 DNV Healthcare

In 2007, DNV acquired the American third-party assessment company, TÜV Healthcare Specialists (TÜVHS). This acquisition was the foundation of DNVHC, which today is headquartered in Houston, Texas<sup>11</sup>.

Working in the international market, DNVHC's accreditation is based on the proven National Integrated Accreditation for Healthcare Organizations (NIAHO) standards platform, which is approved by the US government. Also, they incorporate country-specific requirements for clinical excellence and patient safety<sup>12</sup>. Among other things, DNVHC offers hospital accreditation and training programs to help improve quality and performance, as well as contributing to diminish errors<sup>13</sup>.

DNVHC operates worldwide to make healthcare more effective and safe, and they are represented within this industry in the United States of America (USA/US), United Kingdom (UK), Brazil, Central Europe and some Asian countries,

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<sup>9</sup> [http://www.dnv.com/press\\_area/press\\_releases/2009/dnvsustainabilitycentreopensinbeijing.asp](http://www.dnv.com/press_area/press_releases/2009/dnvsustainabilitycentreopensinbeijing.asp)

<sup>10</sup> [http://www.dnv.com/press\\_area/press\\_releases/2009/dnvsustainabilitycentreopensinbeijing.asp](http://www.dnv.com/press_area/press_releases/2009/dnvsustainabilitycentreopensinbeijing.asp)

<sup>11</sup> [http://www.dnv.com/industry/healthcare/hospital\\_accreditation/niaho\\_advantages/](http://www.dnv.com/industry/healthcare/hospital_accreditation/niaho_advantages/)

<sup>12</sup> <http://dnvhealthcare.com/>

<sup>13</sup>

[http://www.dnv.com/press\\_area/press\\_releases/2009/dnvsignsagreementforchinahealthcareresearch.asp](http://www.dnv.com/press_area/press_releases/2009/dnvsignsagreementforchinahealthcareresearch.asp)

including China. DNVHC has the expertise and experience to make healthcare healthier<sup>14</sup>.

As shown in *Figure 1*, DNVHC in China is a division at DNVSC. According to Jinsong Gao, the General Director of DNVHC China, healthcare is at the core of DNV's values, purpose and vision; it is directly linked to people's lives. Furthermore, food is essential, and if food is not safe, this will affect the health of Chinese people. This is the reason why DNVHC, with its high-qualified employees, sees it as important to undertake food safety projects despite their lack of an own food safety division in China.

### ***2.5.1 Healthcare Risk Management Research Centre***

China National Health Development Research Center (CNHDRC)<sup>15</sup> was established in 1991 by the authority State Staff Committee, and is a national research centre under direct leadership of Ministry of Health (MOH). In 2009, DNVHC signed an agreement with CNHDRC to do research on risk management of the current national healthcare reform in China. The DNVHC-CNHDRC joint research institute is called the Healthcare Risk Management Research Centre<sup>16</sup>. This cooperation is of great importance for DNVHC, because it helps DNVHC build reliability and good relationship with the government as a relatively new actor in the health sector in China.

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<sup>14</sup> <http://dnvhealthcare.com/>

<sup>15</sup> [http://www.nhei.cn/ennheis/wn/news/news\\_0015.html](http://www.nhei.cn/ennheis/wn/news/news_0015.html)

<sup>16</sup>

[http://www.dnv.com/press\\_area/press\\_releases/2009/dnvsignsagreementforchinahealthcareresearch.h.asp](http://www.dnv.com/press_area/press_releases/2009/dnvsignsagreementforchinahealthcareresearch.h.asp)

## Part II – Methodology and Theories

### Chapter 3: Research Methodology

The authors have used Gripsrud, Olsson, and Silkoset's steps of the research process as framework for this research<sup>17</sup>:



Figure 2: Steps of the Research Process. Source: Gripsrud, Olsson, and Silkoset. 2008: 53

The first stage was, in cooperation with DNV Healthcare China, to determine what the authors could provide the company with. After having resolved this, the authors formulated a specific statement of problem, and then drew up a map with all the questions that needed to be answered in order to solve the stated problem<sup>18</sup>. This map was divided in four sections: macro environment, market structure, competition, and DNVHC China. After the authors decided on design and data requirements, they started collecting information in the following order:



Figure 3: The authors' stages of information collection

The collected data was then applied in various analytical tools, in order to report the findings and conclusions to DNVHC.

<sup>17</sup> Gripsrud, Olsson, and Silkoset. 2008: 53

<sup>18</sup> Appendix 1

## 3.1 Research design

In this bachelor thesis the authors used an *exploratory research design*. Gripsrud, Olsson, and Silkoset suggest this design if the researchers know little regarding to the chosen topic and one does not have a clear understanding of the relations that exist. This means that one does not know the relevant concepts in the field, or has a theoretical model as a starting point<sup>19</sup>. Also, gaining insight in the Chinese pork safety market was an important goal of this thesis, in order to give DNVHC implications on what positioning strategy they can exploit in this market.

### 3.1.1. Research strategy

The research strategy has been *qualitative*, which is a common strategy choice when an exploratory research design is applied. Qualitative research is expressed in words, and the goal is to get a complete, detailed description of what is observed. Qualitative research emphasizes on the ways in which individuals interpret their social world, and views the social reality as a constantly shifting emergent property of individuals' creation<sup>20</sup>.

When a case study is based on a qualitative research strategy, it usually takes an inductive approach to the relationship between theory and research<sup>21</sup>. This means that the findings of the research determine which theories to use when the conclusions are drawn at the end<sup>22</sup>.

### 3.1.2 Validity and Reliability

*Validity* is about whether a researcher measures what is supposed to be measured, and *reliability* refers to how trustworthy and dependable the data are<sup>23</sup>. These two criteria are important when evaluating the overall quality of a research. However, Alan Bryman and Emma Bell state that there has been some discussion regarding the relevance of validity and reliability for qualitative researches. For example, validity refers to measurement, but measurement is not a major preoccupation for

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<sup>19</sup> Gripsrud, Olsson, and Silkoset. 2008: 59

<sup>20</sup> Bryman and Bell. 2007: 28

<sup>21</sup> Bryman and Bell. 2007: 63

<sup>22</sup> Bryman and Bell. 2007: 14

<sup>23</sup> Gripsrud, Olsson, and Silkoset. 2008: 72-73

qualitative researchers. Different writers have proposed different solutions, or modifications, in order to address this problem.

Guba and Lincoln developed specific terms that can evaluate the quality of a qualitative research, as an alternative to validity and reliability. *Trustworthiness* (credibility, transferability, dependability and conformability) and *authenticity* (fairness, ontological authenticity, educative authenticity, catalytic authenticity and tactical authenticity) are the two main criteria they suggest<sup>24</sup>. In this thesis, the authors found trustworthiness particularly important, because the authors want to suggest a positioning strategy that DNVHC actually can exploit in the Chinese pork safety market.

## 3.2 Data collection

### 3.2.1 Secondary Data

Most of the information in this thesis has been collected through secondary sources. Firstly, the authors reviewed previous case studies, articles, organizational magazines, annual reports, as well as scientific literature. Secondly, the authors mapped out the secondary data that was important for this thesis. Bryman and Bell suggest several reasons for writing a literature review: It is useful to know what is already known, one can learn from other researchers' mistakes, and it can include important variables to the research. Also, existing literature can help the researcher refine or redefine the research questions<sup>25</sup>.

#### *Critical evaluation of secondary data*

Gripsrud, Olsson and Silkoset argue that because secondary data previously was collected for another purpose, this kind of information is exposed to the same weaknesses and faults as primary data. Furthermore, secondary information can be transformed through communication. Although it is impossible to avoid weaknesses of secondary data, it is important to be aware that they may exist and how they can create more uncertainty in analyses<sup>26</sup>. The authors did as best they could to evaluate the trustworthiness and authenticity of secondary sources, in

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<sup>24</sup> Bryman and Bell. 2007: 410-414

<sup>25</sup> Bryman and Bell. 2007: 107

<sup>26</sup> Gripsrud, Olsson and Silkoset. 2008: 79

order to ensure the quality of this thesis. In situations where quality of information was difficult to measure, the data was confirmed by DNVHC. Some state that Wikipedia.com is an untrustworthy source. However, the authors used this source to acquire data on the current food safety situation in China, because this specific article was recommended by Jinsong Gao.

A consequence of doing research in China is that the authors had to use several Chinese sources. Chinese web pages and articles are often translated to English through *Google Translate*. Although Google Translate usually is accurate, this tool does not always translate perfectly.

The authors also took into consideration that corporate web pages often are biased, as the companies tend to oversell themselves. For example, every single one of DNVHC's potential competitors claims to be global leaders within risk management services.

### **3.2.2 Primary Data**

In agreement with DNVHC, the authors found that acquiring primary qualitative data externally was unnecessary for this thesis. This was due to the fact that DNVHC still is silent regarding their wish to get involved in the pork safety market.

On the other hand, the authors found it very helpful and insightful to receive information about the company and the Chinese pork safety market from internal sources at DNVSC. Conversations and discussions with key healthcare employees at DNVSC have been important sources of information gathering. Jinsong Gao together with the Food Safety Consultant Kenneth Garnett, and the Healthcare Consultant Jerry Ningli, have been very helpful in the process of gathering data.

## **Chapter 4: Internal Analysis Theories**

When analyzing the internal environment in a company, the goal is to assess this company's strengths and weaknesses. A company should correct their weaknesses



and emphasize on their strengths in order to improve their competitiveness<sup>27</sup>. In order to analyze DNVHC's internal environment, the authors used the ACE model and the VRIO framework.

## 4.1 ACE Model

The authors used the ACE model to analyze DNVHC's likelihood of success in the Chinese pork safety market according to the company's *attitudes*, *competence* and the *embodiment* of these two<sup>28</sup>.

According to Carl Arthur Solberg, the general *attitude* towards export is dependent on the company's willingness to take risks, its market orientation, the company's attitudes towards other cultures, as well as obstacles in the market<sup>29</sup>. Regarding *competence*, the authors reviewed the company's skills, insights and knowledge and how they use these capabilities to create value.

Finally, the authors looked at the *embodiment* of the two abovementioned factors, to analyze to which extent they are integrated in the whole organization. All parties in the organization need to share focus and goals, in addition to a high level of motivation. If the company possess a sustainable high competence, appropriate attitudes and a high degree of embodiment of these factors, the company is more likely to be a successful exporter<sup>30</sup>.

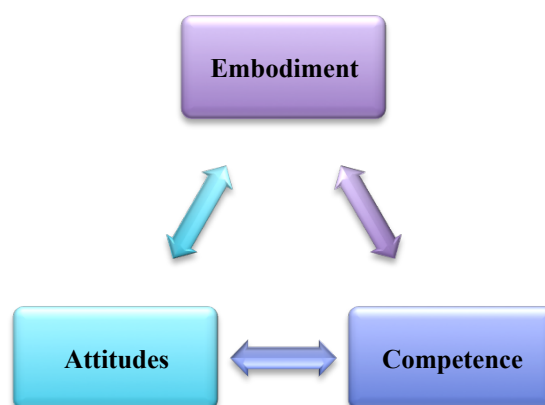


Figure 4: ACE Model. Source: Solberg. 2006: 145

<sup>27</sup> Kotler and Keller. 2009: 92

<sup>28</sup> Solberg. 2006: 144

<sup>29</sup> Solberg. 2006: 139

<sup>30</sup> Solberg. 2006: 143

## 4.2 The VRIO Framework

The authors used the VRIO framework to identify DNVHC's most important sustainable competitive advantages. To identify this, the authors looked at the tangible and intangible resources of DNVHC, and asked questions about the resources' *value*, *rarity*, *imitability* and *organization*.

The question of *value* refers to the extent of which the company is able to exploit an opportunity or neutralize external threats with its resources and capabilities. *Rarity* refers to if a resource or capability is controlled by a small number of competing companies, and how common it is in an industry. *Imitability* alludes to if imitation is difficult, and if a company's attempts to obtain, develop or duplicate resources and capabilities creates significant cost disadvantages. The question of *organization* relates to if the company is organized, ready and able to exploit the resources and/or capabilities.

If a company's resources are not valuable, this is viewed as a competitive disadvantage. If the resource is valuable, but not rare, the resource is a competitive parity. When a resource is valuable and rare, this is a competitive advantage. However, the resource must be valuable, rare, costly to imitate and properly organized, in order to be a sustainable competitive advantage<sup>31</sup>.

## Chapter 5: External Analysis Theories

One way of observing the external market environment is to examine a company's opportunities and threats. A market opportunity is a chance for a company to grow or progress due to favorable circumstances in their business environment. On the contrary, environmental threats are dangers in the business surroundings<sup>32</sup>. In order to analyze market opportunity and environmental threats for DNVHC, the authors used PESTEL Analysis, Competitor Analysis and Michael Porter's Five Forces.

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<sup>31</sup> Applying the VRIO framework

<sup>32</sup> Kotler and Keller. 2009: 90-91

## 5.1 PESTEL Analysis

This model includes the macro factors *political factors, economical factors, social factors, technological factors, environmental factors* and *legal factors*<sup>33</sup>. The authors used the PESTEL analysis to find out what in the macro environment that has direct implications for DNVHC if they choose to enter the Chinese pork safety market.

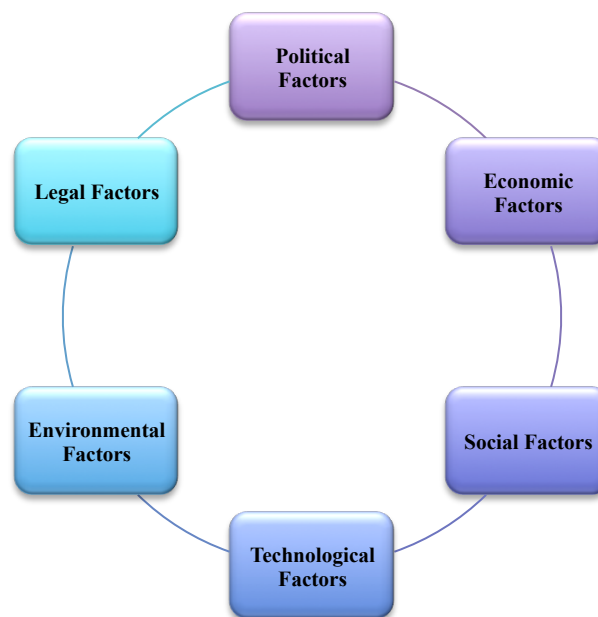


Figure 5: PESTEL analysis. Source: <http://www.valuebasedmanagement.net>

## 5.2 Competitor Analysis

A competitor analysis has two primary activities; the first is to obtain relevant information about which competitors that are perceived to be important, and the second is to use this information to analyze the competitors' behavior. To do so, the authors chose to use Michael Porter's competitor analysis components. The key components of this framework are the competitors' *objectives, assumptions, strategy, and resources and capabilities*, which eventually defines the *competitor's response profile*.

*Objectives* are characterized as what drives the competitor in terms of leadership ambitions, delivering customer value and company visions, among others.

<sup>33</sup> [http://www.valuebasedmanagement.net/methods\\_PEST\\_analysis.html](http://www.valuebasedmanagement.net/methods_PEST_analysis.html)

*Assumptions* can be referred to as the beliefs that companies may have about themselves, their competitive situation and industry trends. By examining statements by managers, annual reports, press releases and so on, the authors could determine the different competitor's *strategy* according to Michael Porter's Generic Strategies, which will be explained in subchapter 7.2. *Resources and capabilities* define the competitor's ability to effectively react and adapt in a dynamic and competitive environment.

The *response profile*, which indicates the competitors' possible future actions, is the final step in the competitor analysis. It is made based on the competitor's abovementioned factors. In this thesis, the authors wanted to reveal the competitors' possible future behavior, particularly the likelihood of entering the pork safety market.

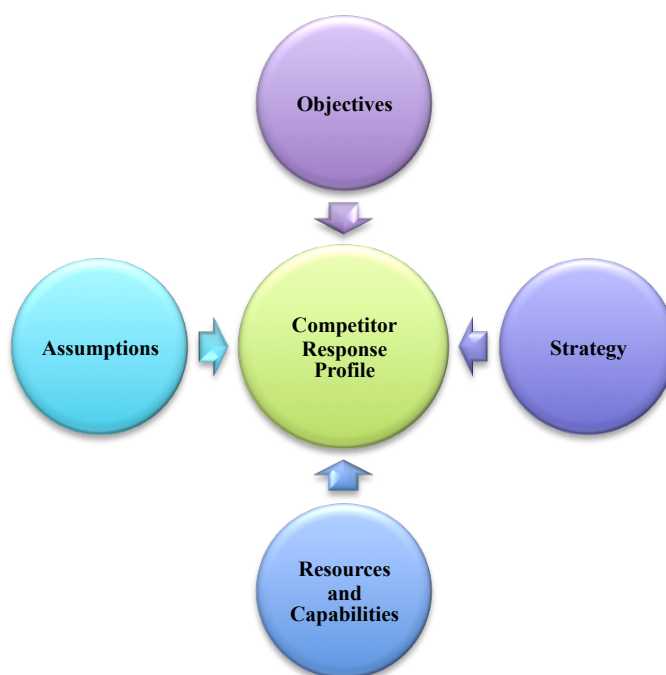


Figure 6: Competitor Analysis Components. Source: [www.netmba.com](http://www.netmba.com)

### 5.3 Porter's Five Forces

Michael Porter's Five Forces model for competitive analysis is a tool that can be used to determine the overall attractiveness of an industry, as it defines how different external forces pose threats within a market segment<sup>34</sup>.

The model presents five different threats, where the first one is the *threat of intense segment rivalry*. This force indicates if the segment is unattractive according to the number and aggressiveness of competitors, if the segment is stable or declining and if fixed costs and exit barriers are high. The *threat of new entrants* determines if entry- and exit barriers are high or low, which indicates how attractive the segment is to enter. Thirdly, a segment is regarded unattractive if there are actual or potential substitutes to the product and/or service, and this force is known as the *threat of substitute products or services*. The *threat of buyers' growing bargaining power* also determines the attractiveness of an industry; if buyers possess growing or strong bargaining power, the segment is unattractive. Lastly, the model presents the *threat of suppliers' growing bargaining power*. If a company's suppliers have the ability to rise prices or reduce the quantity supplied, the segment is viewed as unattractive.

Due to the historical context this model was developed in (1980), it can be claimed to be out of date. This model assumes a classic perfect market with a relatively static market structure<sup>35</sup>, which makes it less applicable in China where the government affects the competitive situation in a dynamic market.

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<sup>34</sup> Kotler and Keller. 2009: 334-335

<sup>35</sup> <http://www.themanager.org/pdf/p5f.pdf>

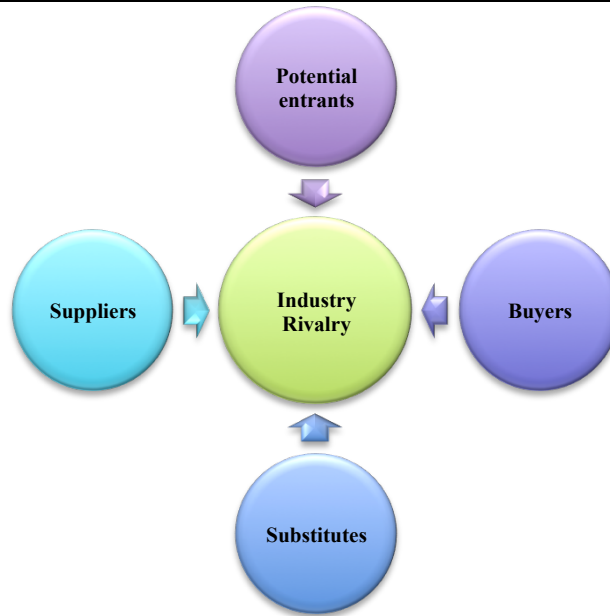


Figure 7: Porter's Five Forces. Source: Kotler and Keller. 2009: 335

## Chapter 6: SWOT Theory

To get an overview of DNVHC's strategic situation, the external and internal findings can be categorized into *strengths*, *weaknesses*, *opportunities* and *threats* in a SWOT analysis. *Strengths* and *weaknesses* allude to the internal organizational environment, while *opportunities* and *threats* are attributes of the external business environment<sup>36</sup>.

Although this tool has its limitations and has been criticized for oversimplifying, the authors still believed that it was useful in terms of getting an overall overview within the limited timeframe<sup>37</sup>.

<sup>36</sup> Kotler and Keller. 2009: 89-92

<sup>37</sup> <http://www.netmba.com/strategy/swot/>



Figure 8: SWOT analysis. Source: <http://marketingteacher.com/lesson-store/lesson-swot.html>

## Chapter 7: Strategy Theories

After completing the SWOT analysis based on the internal and external analyses, the authors used findings from part III of this thesis to more strategically analyze what DNVHC should do. The authors chose to use positioning theories and marketing mix theories.

### 7.1 Positioning

Philip Kotler, Kevin Lane Keller and Taihong Lu define positioning as *the act of designing the company's offering and image to occupy a distinctive place in the mind of the target market*<sup>38</sup>.

Positioning necessitate that the differences and similarities between brands must be defined and communicated. To decide on a positioning strategy, the authors identified DNVHC's category membership and target market, in addition to identifying *Points-of-Parity (POP)* and *Points-of-Difference (POD)* brand associations.

*PODs* are attributes the consumers closely relate to a brand; it is positive associations the consumer believes only this brand possesses, and not the competitive brands.

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<sup>38</sup> Kotler, Keller and Lu. 2009: 218

*POPs* are associations that are not necessarily unique for the brand, but can in fact be mutual with other brands. The associations can be split in *category POP* and *competitive POP*. *Category POPs* are associations the consumer think is essential to a category, however it is not enough to make a decision between brands. *Competitive POPs* are associations made to neutralize the competitors' *PODs*<sup>39</sup>.

### 7.1.1 Porter's Generic Strategies

A company must position itself optimally in an industry in order to generate superior returns. Michael Porter argues that a company's advantage fall into one of these categories: *cost advantage* or *differentiation*. Based on these advantages and a company's target scope, Porter presents three generic strategies: *cost leadership*, *differentiation* and *focus*. The generic strategies are not company- or industry-dependent, hence the name, and are applied at the business unit level<sup>40</sup>.

Harald Biong and Erik B. Nes suggest six basic factors for differentiation:

*Product, Service, Relations, Personnel, Company and Image*<sup>41</sup>.

Target Scope	Advantage	
	Low Cost	Product Uniqueness
Broad (Industry Wide)	Cost Leadership Strategy	Differentiation Strategy
Narrow (Industry Segment)	Focus Strategy (low cost)	Focus Strategy (differentiation)

Figure 9: Porter's Generic Strategies. Source: <http://www.quickmba.com>

## 7.3 Marketing Mix

The Marketing Mix comprises the 4 P's *Product, Price, Promotion* and *Place*.

Companies often adapt their Marketing Mix to the different countries and cultures they operate in. The 4 P's are factors the company can control; they are related to

<sup>39</sup> Kotler, Keller and Lu. 2009: 219-220

<sup>40</sup> <http://www.quickmba.com/strategy/generic.shtml>

<sup>41</sup> Biong and Nes. 2005: 189-190



the internal and external marketing environment. The aim is to make strategic decisions regarding the 4 P's, so they can create perceived value and positive response by the target customers<sup>42</sup>.

As DNVHC offers services, the 4 P's can be claimed to fall short. Hence, the authors chose to use the 7 P's, which is referred to as the Expanded Marketing Mix for services. These three additional P's are *People*, *Physical Evidence* and *Process*<sup>43</sup>.

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<sup>42</sup> <http://www.netmba.com/marketing/mix/>

<sup>43</sup> Olsen, 2008: 15

## **Part III – Information, Analysis and Findings**

### **Chapter 8: The Pork Safety Market**

In this chapter, the authors have reviewed both food and pork safety in China, and also how the pork supply chain in China is structured. In addition to this, international pork safety trends have been discussed in order to highlight what trends that can be expected in the Chinese pork safety market.

#### **8.1 Food Safety in China**

Today, the food safety in China is a significant issue for the country. An important concern is related to agriculture; where eggs, dairy products, beef and pork are the country's principal livestock products. The Chinese government, with the MOH as the main regulatory body, oversees food safety. However, the government departments that oversee and enforce policies often have overlapping and unclear duties. This politically complex part of Chinese food safety will be further addressed in the PESTEL analysis in subchapter 11.1.

There are a lot of changes in the food market related to China's development and international trade. Due to the fact that so many of the food producers are small land-holding farmers, and that the land in China is less arable than other nations, farmers unfortunately tend to use fertilizer and pesticides to increase food production<sup>44</sup>. The use of pesticides and chemical fertilizers in planting, animal medicines, and hormones in breeding has caused a lot of problems in agricultural products for China. The country is the largest consumer of chemical fertilizers in the world, and several pesticides that are forbidden in the European Union (EU) are still being used in China<sup>45</sup>. However, the government tries to control the domestic market, and local authorities control food regulations as best they can<sup>46</sup>.

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<sup>44</sup> [http://en.wikipedia.org/wiki/Food\\_safety\\_in\\_the\\_People's\\_Republic\\_of\\_China](http://en.wikipedia.org/wiki/Food_safety_in_the_People's_Republic_of_China)

<sup>45</sup> <http://chinaperspectives.revues.org/819>

<sup>46</sup> [http://en.wikipedia.org/wiki/Food\\_safety\\_in\\_the\\_People's\\_Republic\\_of\\_China](http://en.wikipedia.org/wiki/Food_safety_in_the_People's_Republic_of_China)

China produces more agricultural products than it consumes. Consequently, export is very important for the country. As a result, international trade interests drive the importance of improving food safety. However, the food safety situation in China remains unsatisfactory, despite the government's efforts to enforce and supervise the application of food safety standards.

Food scandals make people aware of the danger of eating unsafe food. In 2001, more than 19,000 people were poisoned in 611 food poisoning cases<sup>47</sup>. The 2008 Chinese dairy scandal was an incident where an estimate of 300,000 victims was reported, 6 babies died and 860 babies were hospitalized<sup>48</sup>.

A.T. Kearney stated in a research report from 2007, that 95 percent of Chinese consumers think food safety is a very important criterion for their purchase behavior. An increasing amount of consumers move away from wet markets to retailers as a result of this, because they are willing to pay more to ensure safe products<sup>49</sup>.

The dairy scandal, among other incidents, has caused a shift in the Chinese government's behavior towards food safety. The Chinese government plans to make *ensuring food safety* into a major health service project during the next five years, and food safety has been a high priority in 2011. The Health Minister, Chen Zhu, stated at a national conference on food safety and health inspection that:

*Reducing and eliminating food-safety problems and related crimes is a long, arduous and complicated process. (...) It needs enhanced coordination and cooperation among related departments like the Ministry of Health and the General Administration of Quality Supervision, Inspection and Quarantine*<sup>50</sup>.

According to Professor Wu Ming from the Peking University's School of Public Health, such projects demand increased government spending and devotion, especially from local authorities<sup>51</sup>.

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<sup>47</sup> <http://chinaperspectives.revues.org/819>

<sup>48</sup> <http://www.guardian.co.uk/world/2008/dec/02/china>

<sup>49</sup> A.T. Kearney: *Food Safety in China: What it means for global companies*.

<sup>50</sup> [http://news.xinhuanet.com/english2010/china/2011-02/16/c\\_13734776.htm](http://news.xinhuanet.com/english2010/china/2011-02/16/c_13734776.htm)

<sup>51</sup> [http://news.xinhuanet.com/english2010/china/2011-02/16/c\\_13734776.htm](http://news.xinhuanet.com/english2010/china/2011-02/16/c_13734776.htm)

Since the implementation of the Food Safety Law in 2009, MOH has established 31 food safety-monitoring centers at provincial level, and 312 at county level. The Ministry of Agriculture has expanded their monitoring of agricultural products' safety quality to 259 large- and medium-sized cities. However, China's food safety monitoring is still at a preliminary stage that is technologically weak. The government departments stated in a report that they will increase spending, among other measures, to improve monitoring, but this report did not give indications about the spending plans<sup>52</sup>.

## 8.2 Pork Safety in China

48 to 50 percent of the world's live pigs are grown in China<sup>53</sup>, making the country the world-leading producer of pork. The Chinese population consumes 600 million pigs annually<sup>54</sup>, and pork is one of the country's most important livestock products<sup>55</sup>. In 2009, pork accounted for 65 percent of all meat consumed in China<sup>56</sup>, which indicates a high domestic demand.

In March 2011, tainted pork became another food safety scandal to shock China. Several farmers in the Henan province were using Clenbuterol in their pig feed. In central China, three senior officials were suspended, and more than two dozen Chinese people were penalized after their pigs tested positive for the chemical<sup>57</sup>. According to Kenneth Garnett, the issue is that the farmers, with the official's approval, will choose which animals they want to test. Consequently, it is difficult for the authorities to detect illegal conditions in the pork production.

Clenbuterol is a synthetic fat-burning substance that leads to muscle growth. In China, it is known as the "lean meat powder", and the drug can be poisonous to humans when consumed over longer periods of time. Farmers add Clenbuterol in animal feed because they are impatient to get their pork to the market and make profits. In addition to reducing the pig's body fat, Clenbuterol makes butchered

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<sup>52</sup> [http://news.xinhuanet.com/english2010/china/2010-09/03/c\\_13477046.htm](http://news.xinhuanet.com/english2010/china/2010-09/03/c_13477046.htm)

<sup>53</sup> <http://www.prairieswine.usask.ca/database/pdf/2466.pdf>

<sup>54</sup> <http://www.thepigsite.com/articles/3182/tianli-broadens-its-horizons>

<sup>55</sup> [http://en.wikipedia.org/wiki/Food\\_safety\\_in\\_the\\_People's\\_Republic\\_of\\_China](http://en.wikipedia.org/wiki/Food_safety_in_the_People's_Republic_of_China)

<sup>56</sup> [http://www.chinadaily.com.cn/china/2011-04/06/content\\_12281515.htm](http://www.chinadaily.com.cn/china/2011-04/06/content_12281515.htm)

<sup>57</sup> <http://foodsafety.suencs.com/archives/tag/clenbuterol-in-pork-in-china>

skin pinker, to ensure that the pigs look fresher for a longer period of time<sup>58</sup>. Even though this chemical has been illegal in China since 2002<sup>59</sup>, it is suspected of being widely used in animal production, underlining China's chronic problems with policing their food chain<sup>60</sup>.

In April 2011, Shanghai Daily reported that middlemen instructed pig farmers to add Clenbuterol in pig feed for a specific period of time, in order to achieve optimal size on the pork. The middlemen offered the individual pig farmers more money for each pig fed with the illegal drug. Allegedly, some of these middlemen worked as inspectors at the animal quarantine authority, giving them an opportunity to cheat. They gained money from selling Clenbuterol, higher commission for the pork and increased orders from slaughterhouses, since the lean pork became more popular<sup>61</sup>.

Zheng Fengtian, professor at the School of Agricultural Economics and Rural Development at Renmin University of China, believes that the use of Clenbuterol is just one of several problems with the country's meat industry<sup>62</sup>. According to a statement from the Henan Provincial Government, a new round of inspections has started, where the focus is on additives such as Ractopamine and Salbutamol. These are used as alternatives to Clenbuterol, but were neglected in the first round of inspections<sup>63</sup>.

To summarize, there are three main problems in the current Chinese pork safety market:

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<sup>58</sup> <http://foodsafety.suences.com/archives/tag/clenbuterol-in-pork-in-china>

<sup>59</sup> [http://europe.chinadaily.com.cn/china/2011-03/31/content\\_12253919.htm](http://europe.chinadaily.com.cn/china/2011-03/31/content_12253919.htm)

<sup>60</sup> <http://foodsafety.suences.com/archives/tag/clenbuterol-in-pork-in-china>

<sup>61</sup>

<http://www.shanghaidaily.com/nsp/National/2011/04/01/Pig%2Bfarmers%2Btold%2Bto%2Bdrug%2Blivestock/>

<sup>62</sup> [http://www.chinadaily.com.cn/china/2011-04/06/content\\_12281515.htm](http://www.chinadaily.com.cn/china/2011-04/06/content_12281515.htm)

<sup>63</sup> [http://europe.chinadaily.com.cn/china/2011-03/22/content\\_12209162.htm](http://europe.chinadaily.com.cn/china/2011-03/22/content_12209162.htm)

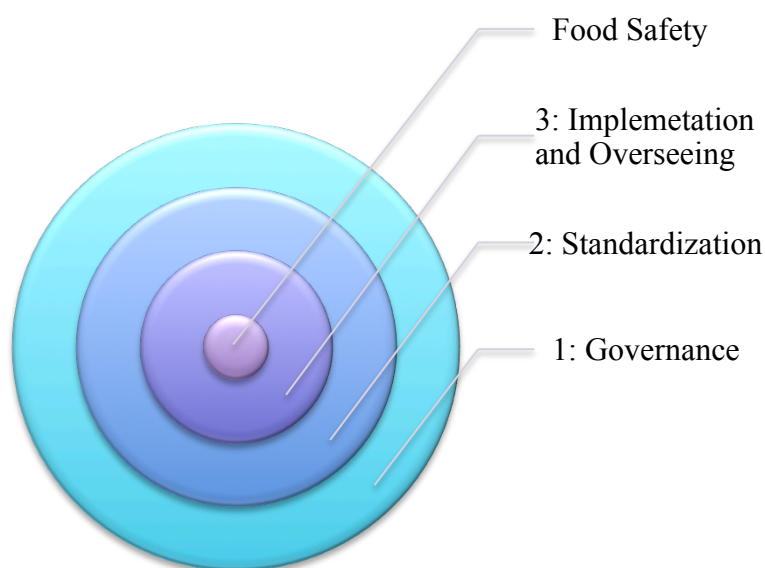


Figure 10: Multilayer problem

## 8.3 Pork Supply Chain in China

The pork supply chain depicted below illustrates a general image of the movement of Chinese pork through the various sectors to a marketable product.

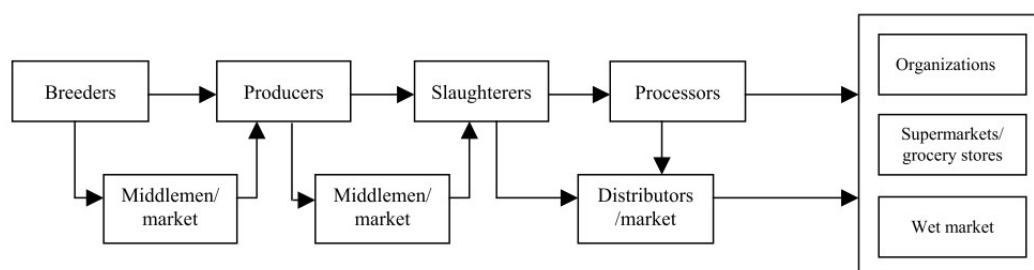


Figure 11: The Chinese Pork Supply Chain. Source: *The Supply Chain of Pork: U.S and China*.

### 8.3.1 Pork Production Systems

Chinese pork is most commonly produced in these three ways: *commercialized farming*, *specialized farming*, and/or *backyard farming*.

#### *Commercialized Farming*

A trend that has taken place the last decade is the increasing amount of commercial production facilities. As *Table 1* below illustrates, the share of household production (including backyard and specialized farming) has decreased

from 97.50 percent in 1985 to 89.29 percent in 2003, while the share of commercial farming has increased from 2.50 percent to 10.71 percent in the same time period. A recent published report written by the Global Agricultural Information Network, shows that the pig crop production in China is expected to rise even more this year, partly because of the continuous growth of commercialized farms<sup>64</sup>.

Pork production share by scale of operation					
Production System	1985	1993	1996	2002	2003
Household	97.50	96.50	95.30	90.05	89.29
Commercial	2.50	3.50	4.70	9.95	10.71

*Table 1: Pork Production Share by Scale of Operation. Source: A Case Study of China's Commercial Pork Value Chain*

As for the organization, the commercial producers are comparable to the ones in developed countries, with similar technology, more advanced management practices<sup>65</sup> and vertically integrated operations. They usually control the pork supply chain from feed-supply, sow-piglet production, pig finishing, slaughter-processing, to distribution. Although some of the pork goes out to the wet markets, the market segments for commercial producers are mainly supermarkets, hotels and other institutions. Some of the pork is also exported to countries in the Middle East, Russia, Hong Kong and other Asian markets<sup>66</sup>.

### *Specialized Farming*

During the last decade, the hog production in China has experienced a growth in specialized farming, from 30 to 500 hogs in production a year. These farms are larger than in backyard production, but are often owned by families that do minimal investment in animal facilities. In comparison with the most common backyard farming, their pigs come from more specialized breeders that employ better swine genetics<sup>67</sup> and use more commercial formulated feeds<sup>68</sup>. The hogs bred from specialized farms are usually distributed to more commercialized farms

<sup>64</sup> People's Republic of China: *Livestock and Products Semi-Annual Report 2011*

<sup>65</sup> *The Supply Chain of Pork: U.S and China*

<sup>66</sup> *A case Study of China's Commercial Pork Value Chain*

<sup>67</sup> *The Supply Chain of Pork: U.S and China*

<sup>68</sup> *A case Study of China's Commercial Pork Value Chain*

where they are slaughtered; hence the fact stated above that commercialized farms have more vertically integrated operations<sup>69</sup>.

### *Backyard Farming*

Although backyard farming still accounts for almost 80 percent of the pork supply in China, the number of pigs from backyard production has declined the last two decades<sup>70</sup>.

In 2011, the numbers are expected to decrease even more as the Chinese government passed a new regulation last year, stipulating that subsidiaries will only be given to high quality breeding sows on large commercial farms, eliminating subsidiaries to all productive sows. This, in addition to the fact that it is getting more difficult for small and backyard farmers to get bank loans, will result in declining numbers of backyard operations<sup>71</sup>.

In contrast to more commercialized production facilities, the meat quality, sanitary and hygiene is much lower in backyard production and the pork also tend to have a higher fat ratio than the pork supplied by the commercialized producers. The market of backyard production can be described as fragmented with numerous households, each raising no more than five pigs in simple housing. In terms of distribution, backyard farming is more important in the central and western areas of China, as oppose to specialized and commercial production, which is more dominating in the coastal areas.

### *8.3.2 Slaughtering and processing*

After the slaughtering sector in China became free from monopolization in 1985, individual butchers owning more than 80 percent of the total market share have heavily dominated the slaughtering market. In 1998, the Chinese government passed the *Hog Slaughtering Act*, stating that all slaughtering should take place in designed slaughtering plants. The government's goal was to eliminate illegal slaughtering in China, but due to the fact that most of China's pork supply still

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<sup>69</sup> *The Supply Chain of Pork: U.S and China*

<sup>70</sup> *The Joint Impact of Supply Chain Integration and Quality Management on the Performance of Pork Processing*

<sup>71</sup> *People's Republic of China: Livestock and Products Semi-Annual Report 2011*



comes from backyard production, illegal slaughtering still occurs and is one of the main reasons to contaminated meat.

Peter Ben Embarek, the World Health Organization's food safety expert in Beijing stated the following:

*It's a symptomatic example of a system that is not delivering the level of safety and confidence in food production that it is supposed to deliver (...) At least half of animals being raised in China are not slaughtered through formal, supervised slaughterhouse systems, but are slaughtered either in farms or in backyard settings, small housings or villages, in uncontrolled environments<sup>72</sup>.*

Local manufacturers heavily dominate the pork-processing sector in China, and their production facilities have with time become more westernized with modern equipment and machinery<sup>73</sup>.

### 8.3.3 Transportation

As the transportation system for hogs in China is still characterized as underdeveloped and inefficient, most farmers and manufacturers are selling their pigs and other pork products to the regional markets. Frozen meat is being transported by train or truck, while fresh meat is normally sold to the wet markets because of the lack of proper cold storage systems in the trucks.

### 8.3.4 Retailing market

The Chinese food retail market have for the last decade been characterized by a fast-growing number of supermarkets and chain stores. Large international chain stores like Wall Mart and Carrefour, which started establishing themselves in the Chinese market in the 1990's, are now competing with large-sized national supermarket chains in China. These retail stores, both international and national, represent the dominating sale of frozen or processed pork, while the wet markets

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<sup>72</sup> <http://foodsafety.suencs.com/archives/tag/clenbuterol-in-pork-in-china>

<sup>73</sup> *The Supply Chain of Pork: U.S and China*

and smaller grocery stores are still important market channels for fresh pork meat<sup>74</sup>.

## 8.4 International Pork Safety

Thankappan and Flynn state in their study on the UK Red Meat Supply Chain that:

*Developing countries reliant on meat exports have to adopt EU and US systems to ensure equivalence<sup>75</sup>.*

Due to very high domestic demand, China currently exports a low percentage of pork annually. However, China's pork exports are forecasted to increase 20 percent in 2011<sup>76</sup>. Worldwide, China is one of the largest exporters, especially within the agricultural industry. The ongoing pork incidents in China may cause other countries to become reluctant to import Chinese pork, or any Chinese food.

Stricter sanitation regulation and quality controls of food manufacturers have made coordination in the supply chain a requirement during the last decade<sup>77</sup>. By 2005, the British pork supply chain had the highest degree of vertical coordination and concentration in the red meat industry. The way of organizing takes many forms, where strategic alliances and direct contracting are most common. The motives for the coordination are most importantly to reduce transaction costs and share risks<sup>78</sup>. Vertical coordination is also the trend in the US<sup>79</sup>, where the cold chain system used for transportation of pork is thoroughly integrated. While China has two refrigerated trucks per 10,000 middle-class consumers, the US has nine. This example shows that China is far behind in securing safe transportation and storing of pork<sup>80</sup>.

In the production sector, the number of pork producers has decreased because of consolidation, while the pork output has increased. Together with improved

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<sup>74</sup> *The Supply Chain of Pork: U.S and China*

<sup>75</sup> *Exploring the UK Red Meat Supply Chain*

<sup>76</sup> *People's Republic of China: Livestock and Products Semi-Annual Report 2011*

<sup>77</sup> <http://ageconsearch.umn.edu/bitstream/14300/1/tr02-01.pdf>

<sup>78</sup> *Exploring the UK Red Meat Supply Chain*

<sup>79</sup> *The Supply Chain of Pork: U.S and China*

<sup>80</sup> A.T Kearney: *Food Safety in China: What it means for global companies*

production technology, companies are growing in size and can capture economies of scale<sup>81</sup>. Another factor that influenced consolidation was the increase of regulations, laws, and assurance schemes. Consequently, many farmers struggled to survive; especially the small and medium sized farmers, because they were unable to absorb higher costs.

Consumers in developed countries become more concerned about health and convenience. This, together with a change of lifestyle and a rise in income has caused a shift in the pork supply chain. As the consumers' needs are getting harder to satisfy, the retailers have to take these needs into account. The consumers demand highly detailed product specification, and this made traceability systems necessary and appropriate in supply chains of pork.

In order to provide the customer with high quality meat, the retailers often set their own private standards and requirements, in addition to the generic schemes that are required by governments. Because of the increased trend for the supermarkets to have their own label products for meat, it is the supermarkets' reputations that are on the line if meat incidents occur. These are reasons for increased controls<sup>82</sup>.

Due to the long-term contract arrangements, middlemen have become less important. Retailers, on the other hand, have become more and more important as this sector is growing and continuously adjusts to the dynamic market.

Consolidation in the retailing sector has created mega retailers and packers, and they are gaining increasingly higher power compared to the distributors. Often, retailers buy directly from the packers, or even the producers, bypassing any middlemen. The chain becomes more streamlined by removing redundant or unnecessary activities<sup>83</sup>.

To summarize, the trend in the pork industry is vertical integration, increasingly high customer needs, commercialized production, retailer power, traceability, and strict regulations and standards.

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<sup>81</sup> *The Supply Chain of Pork: U.S and China*

<sup>82</sup> *Exploring the UK Red Meat Supply Chain*

<sup>83</sup> *The Supply Chain of Pork: U.S and China*

## Chapter 9: Chinese Business Culture

There are extensive cultural differences of conducting business in Norway and in China. It is important for DNVHC to be aware of these differences in order to be an attractive business partner, as well as to avoid misunderstandings and pitfalls. According to Richard R. Gesteland, there are two iron rules in international business<sup>84</sup>:

- *The Seller Adapts to the Buyer.*
- *The Visitor is Expected to Observe Local Customs.*

The Chinese business behavior can have some geographical differences, however the overall description given by the authors fundamentally holds true for the whole country. The relationship orientation, the concepts of *guanxi* and *mianzi*, and the meaning of a contract are important factors that will be addressed in this chapter.

### 9.1 Relationship Orientation

*First you make a friend, then you make a deal.*

Having a friendly relationship with counterparts is of significance in most cultures, but to different extents. Norway is characterized as a deal-focused culture, where signing a contract tends to be more important than building and maintaining a relationship with business partners. The Chinese business culture tends to be highly relationship-focused, which implies that getting to know counterparts and building a relationship is a necessity for DNVHC before negotiating and discussing business. To socialize over dinner or drinks are good ways to build relationships<sup>85</sup>.

### 9.2 Guanxi

*Guanxi* is a very important part of the Chinese business culture. The most common English translation of *guanxi* is relationships or networking. However,

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<sup>84</sup> Gesteland. 2005: 17

<sup>85</sup> Gesteland. 2005: 180

the concept applied in Chinese culture is much more comprehensive and encompassing. An important part of *guanxi* is that it indicates an obligation of one party to another, which is built over time by social exchanges and favors. When establishing this type of relationship with someone, the parties implicitly agree to reciprocate when the need arises<sup>86</sup>. Consequently, relationship-building and good connections with people in key positions are often essential when doing business in China.

In order to gain *guanxi*, one must build full trust in the relationship. In many ways, the Chinese *guanxi* is similar to the Norwegian way of building valuable business networks. According to Jinsong Gao, there are two main differences between these two: Firstly, personal relationships tend to be automatically transferred to business relationships in China, whereas in Norway, friends often choose to avoid doing direct business with each other. Secondly, *guanxi* can cause “bending” or breaking of rules, which would be considered unethical and illegal in Norwegian business networks. These two factors may obscure the picture, and can make *guanxi* look like corruption.

### 9.3 Mianzi

To fully understand the concept of *guanxi*, one has to understand the concept of *mianzi*. The expression *mianzi* can be translated to face, as it often refers to the term of “loosing face”. In China however, it is not just about loosing face, but it is also about maintaining and giving face. *Mianzi* can be closely related to a person’s reputation, honor and prestige<sup>87</sup>. In Chinese business culture, a person’s *mianzi*, depends on his or hers *guanxi*. The quality of one’s relations and the size of this person’s network are important factors. This means that the position a person’s *guanxi* holds in society, their abilities to accomplish things and how close their relationships are, plays a significant role. Close relationships with eminent people usually indicate a lot of prestige in one’s *mianzi*<sup>88</sup>.

An essential factor for DNVHC to keep in mind is that the Chinese tend to avoid uncomfortable situations by saving their own and the other party’s face.

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<sup>86</sup> <http://www.kwintessential.co.uk/etiquette/china-guanxi.html>

<sup>87</sup> Kristoffersen. 2008: 33

<sup>88</sup> Kristoffersen. 2008: 34

According to the anthropologist Edward T. Hall, Chinese business culture is a high-context culture, which means that things are often left unsaid and few words are used to explain<sup>89</sup>. If a company believes that they have sealed a deal, they might not have. The worst-case scenario can be that the Chinese party thinks the deal is totally unreasonable and unacceptable, but in order to save the face of the other party, they will sign the deal to be polite. However, the truth actually is that there is no deal, and the foreign company will never hear from the Chinese company again. This leads to *the meaning of contract* in the Chinese business culture<sup>90</sup>.

## 9.4 The Meaning of Contract

The written agreement of a contract has a different meaning in China than in Norway, as the Chinese people regard the relationship between the counterparts as much more important than the written document. Before negotiating a contract with a Chinese counterpart, DNVHC must set a wide margin in the opening offer, due to the fact that Chinese businessmen expect major reductions on price and terms. If circumstances change, the Chinese party will quickly renegotiate the contract. The essential thing to remember in a situation like this is that if the Chinese counterpart change a clause in the contract to their favor, DNVHC should do the same, which in the end can be beneficial for both parties. To enhance the relationship after signing a contract, it is crucial for DNVHC to stay in regular contact by visits and correspondence<sup>91</sup>.

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<sup>89</sup> [http://www.marin.edu/buscom/index\\_files/Page605.htm](http://www.marin.edu/buscom/index_files/Page605.htm)

<sup>90</sup> Kristoffersen. 2008: 175

<sup>91</sup> Gesteland. 2005: 183

## Chapter 10: Internal Analysis of DNVHC China

### 10.1 The ACE Model

As a tool for analyzing DNVHC's internal factors of success in the Chinese pork safety market, the authors chose to use the ACE model. DNVHC's attitudes and competencies, and the embodiment of these two factors were reviewed<sup>92</sup>.

#### 10.1.1 Attitudes

Solberg states that a "good" exporter can be distinguished from a "bad" exporter based on the company's willingness to take risk, its market orientation and its attitudes towards other cultures, as well as market obstacles<sup>93</sup>.

Since 1867, DNV has operated internationally and has established approximately 300 offices in 100 countries. DNV's vision is: "*Global Impact for a Safe and Sustainable Future*", and their goal is to be a global leader within risk management for a safe and sustainable future. Based upon this, the authors find that DNV possesses an integrated global orientation.

The strategy for DNV within the healthcare industry from 2010 to 2014 involves protecting key positions in the UK and the US, while extending and transferring operations to five more countries in the world. China is one of the countries where DNV has strong growth ambitions<sup>94</sup>.

Even though DNVHC does not have its own food safety division at the Sustainability Centre in Beijing at the moment, they are willing to acquire the human resources necessary to pursue potential opportunities in the pork safety market.

The authors find that the facts mentioned above show both DNV and DNVHC's effort and eagerness to operate in the global arena, and therefore conclude that the company's willingness to explore new markets and to take risks is more than satisfactory.

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<sup>92</sup> Solberg. 2006: 145

<sup>93</sup> Solberg. 2006: 139

<sup>94</sup> *WE: The Magazine for DNV Employees*. No. 0210

In early 2010, DNV changed their organizational structure from being sector oriented to become geographically orientated<sup>95</sup>. By establishing headquarters in all the different continents, they are now close to their customers all around the world. According to Solberg, companies that adjust to their export markets in order to move closer to their customers will achieve better results<sup>96</sup>. The fact that DNV has almost 9,000 employees representing more than 85 different nationalities, improves DNV's possibility to act local. With this said; the authors perceive that DNV has an openness and appreciation towards other cultures as well as having a fulfilling market orientation<sup>97</sup>.

Another characteristic of a successful exporter is that the company accepts the differences in the business environment in the international markets they are operating in<sup>98</sup>. When DNV in 2007 acquired the healthcare quality firm, TÜVHS, the purpose of this acquisition was to gain formal recognition from the US government centers for Medicare and Medicaid<sup>99</sup>.

DNV has operated in China since 1988, and has since then developed a good understanding of the Chinese business environment. The DNVHC-CNHDRC cooperation indicates that DNVHC has a high degree of cultural understanding, and know to make use of their *guanxi* with the Chinese government.

From the fact that DNVHC has established *guanxi* with the Chinese government, the authors perceive that DNVHC has managed to overcome obstacles in terms of cultural and political differences. Based on this, the authors draw the conclusion that DNVHC has a positive attitude towards overcoming potential trade barriers.

### 10.1.2 Competence

According to Solberg, general skills and knowledge within relevant areas are not necessarily factors that make an exporter successful; it is the capability of exploiting the different skills and knowledge that creates value for the company. This can be executed through marketing activities. Solberg states that there are

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<sup>95</sup> [http://www.dnv.no/mer\\_om\\_dnv/selskapsprofil/organisasjon/](http://www.dnv.no/mer_om_dnv/selskapsprofil/organisasjon/)

<sup>96</sup> Solberg. 2006: 140

<sup>97</sup> [http://www.dnv.no/mer\\_om\\_dnv/selskapsprofil/organisasjon/](http://www.dnv.no/mer_om_dnv/selskapsprofil/organisasjon/)

<sup>98</sup> Solberg. 2006: 140

<sup>99</sup> <http://www.bizjournals.com/houston/stories/2007/08/06/daily4.html>



two areas of the augmented product that a successful exporter pay more attention to: product development and cooperation with customers. These two factors are correlated, as product development cannot be successfully done without market orientation<sup>100</sup>.

Each year, DNV invests six to seven percent of their revenue in Research & Development (R&D), of which one percent is allocated to DNV Research & Innovation (R&I). The company focuses on Information and Communication Systems and Technologies to develop new products and services in addition to improving the delivery of existing products and services. Their objective is to enhance the customers' user experience, and facilitate DNV to interact effectively with their clients.

According to the internal newsletter WE, DNV strives to be *the best place to develop your competence*, by offering training and competence development to their employees. DNV stimulates sharing of knowledge across their global operations in the means of exploiting competencies to be able to respond to the constant changes in the different market environments<sup>101</sup>.

At the Sustainability Centre in Beijing, there are currently employed seven consultants in health care and business risk management. In a conversation the authors had with Kenneth Garnett, he expressed that DNV is willing to employ more people when needed.

### *10.1.3 Embodiment*

DNV has high business ambitions, as one of their goals is to become the leading global risk management provider. As the findings from the discussion in this chapter shows, DNV has both the attitudes and competencies that Solberg characterizes as important for the successful exporter.

Furthermore, DNV has consultants all over the world with the appropriate skills and knowledge within food safety. DNVHC possesses the resources and

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<sup>100</sup> Solberg. 2006: 142

<sup>101</sup> WE: *The Magazine for DNV Employees*. No. 0210

willingness to recruit those human resources internally or acquire them externally, when working on particular projects.

Based on the elaboration presented in this subchapter, the authors concluded that DNVHC can be characterized as a good exporter with a high likelihood of success in the Chinese pork safety market.

## 10.2 The VRIO Framework

The authors analyzed the tangible resources *financial*-, *physical*-, *technological*- and *organizational*-resources, and the intangible resources *human resources*, *innovation*- and *creativity-skills*, and *reputation*. This was in order to assess DNVHC's most sustainable competitive advantage.

### 10.2.1 Tangible Resources

#### *Financial Resources*

The operating revenue of DNV in 2009 was Norwegian Kroner (NOK) 10,283 million, and the operating profit was NOK 1,108 million. Although their operating profits have slightly decreased since 2008, their liabilities have decreased significantly within the same period<sup>102</sup>. According to Jinsong Gao, this contraction in operating revenue and operating profit has continued in 2010, as the first stagnation for DNV globally in 20 years.

The current ratio of liquidity should be at least 2, and DNV's current ratio is 2.7<sup>103</sup>. The liquidity ratio indicates a company's ability to meet its short-term financial obligations<sup>104</sup>.

DNV's equity ratio in 2009 was 67.4 percent, an increase of more than ten percentage points from 2008<sup>105</sup>. The equity ratio shows how much of their assets that is financed with equity, and thus how much of the assets that could be lost before the creditors' claims are in danger. This number should be at least 30

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<sup>102</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>103</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>104</sup> <http://www.netmba.com/finance/financial/ratios/>

<sup>105</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

percent, but DNV's goal is to keep the equity ratio around 60 percent<sup>106</sup>. The return on equity is the bottom line for shareholders, because it measures the profits earned for each Renminbi (RMB) invested in a firm's stock. In 2009, DNV's return on equity was 24.6 percent.

As mentioned in the research limitations, specific key numbers for DNVSC and DNVHC were impossible to obtain, due to internal confidentiality regulations. However, as this unit was not established until 2009, DNVSC is not profitable on its own yet. According to Eystein Kleiven, their goal is to have positive operating profit numbers by the end of 2012, and reach operating revenue of RMB 100 million by the end of 2014. Although DNVSC is not profitable on its own yet, it is a unit within DNV, and DNV is willing to invest in new markets and projects with good prospects.

### *Physical Resources*

As DNVHC operates in the consulting industry, they do not have any production facilities or production equipment. DNVSC is strategically located in the financial district in Beijing, and is therefore an important physical asset. The DNVSC office itself is consistent with DNV's purpose, vision and values. The green color is well represented in the office facilities, as this symbolizes environment and sustainability. The office has an open landscape solution for everyone, which creates an open atmosphere where cooperation, teamwork and creativity are encouraged<sup>107</sup>. As DNV views employees as their most important resources, creating good working facilities are crucial for the company's success.

### *Technological Resources*

DNV is a trusted partner for government agencies and other actors in the food industry. The DNV advisory services focus on use and implementation of:

- *Traceability technologies and standards for lifecycle tracing and tracking of physical items.*
- *Standards and IT architectures for information lifecycle management and tracking related to complex equipment and plants.*

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<sup>106</sup> WE: *The Magazine for DNV Employees*. No. 0210

<sup>107</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

- *Information quality management regimes related to traceability of items and information in complex organizations.*

The work that DNV does in the food industry is generally based on technology, track and traceability systems, active use of international standards and participating in development of relevant standard bodies.

Currently, there is no traceability system within food safety at DNVSC. However, in Norway, DNV has a traceability system called eTrace, which can be used as a reference project for DNVHC. The ambition for eTrace is to provide a “Best in class” system for full traceability. DNV supports national authorities in handling of food crisis with high-speed precision. The track and trace support covers all aspects from producer to consumer, including logistics and production. It is used for multiple food chains, such as meat, seafood, dairy and vegetables. Basically, DNV is a key resource for Norwegian authorities in the development of data models, identification regimes, requirements development and continuous support in the development- and delivery-phases<sup>108</sup>.

DNV offers a program, called Top Tech, for employees choosing a technical career path<sup>109</sup>. This program requires that the participants have either a Doctor of Psychology Degree or a Master of Science, at least 10 years of relevant experience and a minimum of two years employment with DNV. Top Tech focuses on technology for sustainability, energy innovations and commercialization of technology<sup>110</sup>.

### *Organizational Resources*

DNVSC is operated as an individual branch of DNV, where all business decisions are made without interference from DNV as a whole. However, the DNV company infrastructure provides DNVHC with common administrative support

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<sup>108</sup> *Traceability: DNV References*

<sup>109</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>110</sup>

[http://www.dnv.com/moreondnv/careers/work\\_with\\_us/career\\_development/developing\\_technical\\_talent.asp](http://www.dnv.com/moreondnv/careers/work_with_us/career_development/developing_technical_talent.asp)

within Human Resources (HR), Finance, Information and Communications Technologies and facility management<sup>111</sup>.

In 2009, DNV launched a program called the Global Employee Forum, in order to ensure employee input and representation in every important corporate process. DNV has assessed individual performance for many years, and the system was improved in 2009 with great response. In 2009, 97 percent of all employees participated in the Management of Individual Performance (MIP), which indicates their enthusiasm and willingness to improve. The MIP process makes the communication within the company more effective, which is beneficial in order to turn plans into actions and achieve results through people<sup>112</sup>. Each employee will set goals, discuss progress, and receive feedback, guidance and recognition according to performance<sup>113</sup>.

Corporate Responsibility (CR) is a major part of DNV's strategy. How they manage people, their impact on the environment, responsible business conduct, and their relations with society at large are important areas of DNV's CR. A core value at DNV is to *never compromise on quality and integrity*. In order to ensure responsible and ethical business conduct, DNV focuses on awareness and training among their employees<sup>114</sup>. DNV has also developed their Codes of Business Conduct, which gives specific requirements on what is considered responsible business practices and ethics<sup>115</sup>.

DNV has a global Corporate Social Responsibility (CSR) Board that is responsible for developing annual action plans and to continuously evaluate DNV's CR commitment to ensure that stakeholder expectations are met. The main focus areas of the action plans are governance and business ethics, communication and transparency, safety, health and the environment, and community involvement, partnerships and international collaboration<sup>116</sup>. In China, their employees have been committed to help children at a Sichuan school that was badly damaged in the 2008 earthquakes. DNV employees in China also worked

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<sup>111</sup> WE: *The Magazine for DNV Employees*. No. 0210

<sup>112</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>113</sup> WE: *The Magazine for DNV Employees*. No. 0210

<sup>114</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>115</sup> [http://www.dnv.com/moreondnv/cr/business\\_ethics/code\\_business\\_conduct.asp](http://www.dnv.com/moreondnv/cr/business_ethics/code_business_conduct.asp)

<sup>116</sup> [http://www.dnv.com/moreondnv/cr/cr\\_intro.asp](http://www.dnv.com/moreondnv/cr/cr_intro.asp)

together to fulfill the students' "annual wishes". The school is now fully rebuilt, by DNV and the Red Cross<sup>117</sup>.

### 10.2.2 Intangible Resources

#### Human Resources

2,482 of DNV's employees work in the Asia/Oceania market. The Healthcare team at the Sustainability Centre currently consists of seven, soon to be eight, consultants. 77 percent of the employees worldwide have a bachelor- or master-degree, which indicates high level of knowledge and capabilities<sup>118</sup>.

DNV is a knowledge-based company and their role as a supplier of services relies upon the knowledge, skills and attitudes of their people. An important aspect of this is to develop highly competent, high performing and engaged employees who are committed to DNV's *Purpose, Vision and Values*<sup>119</sup>. The company has over the years focused on measuring their employees' level of satisfaction<sup>120</sup>.

A DNV-specific practice, stated in their new strategy (2010-2014), is to increase diversity in management to better reflect the composition of the current workforce, especially in terms of nationality, gender and age. A goal for DNV is to increase the number of female managers, as well as local managers, in countries with imbalance. Furthermore, DNV wants to increase diversity in terms of professional background, work preferences and personality. Studies have shown that a diverse workforce poses many advantages, such as higher creativity and quality in problem solving, which is important when working with risk management<sup>121</sup>. Numbers from 2009 show that 28 percent of the employees in Asia/Oceania are female, and 67.4 percent of the managers are local<sup>122</sup>.

DNV's manager development program, The Journey, illustrates the continuous development and various challenges that leaders in DNV meet at different

<sup>117</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>118</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>119</sup> *WE: The Magazine for DNV Employees*. No. 0210

<sup>120</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

<sup>121</sup> [http://www.dnv.com/moreondnv/people/diversity\\_opportunity.asp](http://www.dnv.com/moreondnv/people/diversity_opportunity.asp)

<sup>122</sup> [http://www.dnv.com/binaries/dnv%20annual%20report%202009\\_tcm4-418852.pdf](http://www.dnv.com/binaries/dnv%20annual%20report%202009_tcm4-418852.pdf)

management levels<sup>123</sup>. In addition, a new framework for succession management and performance management for leaders has been introduced, seeking to further improve leadership performance. Moreover, DNV hopes to increase the knowledge diversity of the management through these programs.

According to DNVSC's Food Safety consultant, Kenneth Garnett, there is currently zero expertise regarding food safety at the Sustainability Centre. However, this is not viewed as something negative. They follow the typical *Consultant Growth Model*, where a company sees an opportunity and then train, re-educate, or hire experts on the specific field of interest. As an example, there are doctors, hospital managers, entrepreneurs, and risk managers, among more, currently working on Healthcare at DNVSC. The DNV view is that as long as there is a market, they can acquire the necessary knowledge and expertise to execute a project.

### *Innovation and Creativity*

Innovation is one of DNV's core values, and DNV is aware of the fact that they need to maintain an appropriate breadth of technological competencies in order to stay competitive. DNV states that it is an important part of their strategy to carry out research and technology in key technology areas. Within the field of research and innovation, DNV has organized the total R&D efforts in two main groups<sup>124</sup>:

- Strategic- and long term research (within DNV R&I)
- Maintenance and development of services and tools (within the different business units)

DNV R&I works with exploring and testing new technologies, as well as building new knowledge within selected technology areas. These selected areas are believed to be of specific significance for DNV's own development and business activities in the future. DNV R&I currently focuses on six major strategic research programs, including *Food and Biorisk*<sup>125</sup>.

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<sup>123</sup>

[http://www.dnv.com/moreondnv/careers/work\\_with\\_us/career\\_development/manager\\_development.asp](http://www.dnv.com/moreondnv/careers/work_with_us/career_development/manager_development.asp)

<sup>124</sup> [http://www.dnv.com/moreondnv/research\\_innovation/index.asp](http://www.dnv.com/moreondnv/research_innovation/index.asp)

<sup>125</sup> [http://www.dnv.com/moreondnv/research\\_innovation/programmes/index.asp](http://www.dnv.com/moreondnv/research_innovation/programmes/index.asp)

### Reputation

As a market leader, DNV has a global reputation for excellence<sup>126</sup>.

The present DNV logo was designed in 1993 and the main purpose was to communicate more effectively in the international market. The blue symbolizes ocean and the green symbolizes nature, which altogether is meant to represent DNV's concern for the environment. Consistent use of the logo is an important part of building recognition for the DNV brand. DNV claims that the logo is the most important asset of their visual identity<sup>127</sup>, because their brand is exclusively built through the DNV logo as they have a monolithic brand architecture<sup>128</sup>.

Because DNVHC is still a relatively new player in China, this division is not that known in the Chinese market. However, DNV's global brand and reputation in China are primarily established in the maritime industry and this may enhance credibility for DNVHC<sup>129</sup>. On the contrary, the strong DNV brand in the maritime industry can also be viewed as a weakness. According to Jinsong Gao, DNV translates as *the Norwegian Shipping Classification Society* in Chinese, which obviously can cause confusion if DNV enters the pork safety market in China.

### 10.2.3 Summary of resources

In this VRIO framework, the authors reviewed both resources that the company possesses at DNV, DNVSC and DNVHC level. However, in order to decide upon the most sustainable competitive advantage, it was necessary to exclusively conclude on behalf of DNVHC. To be able to answer the statement of the problem, it was important to know which competitive advantage to focus on when DNVHC chooses a positioning strategy in a new market.

DNV's *financial resources* are strong despite the economic contraction in 2009 and 2010. Although DNVSC is not profitable on its own, DNVHC has financial resources to invest in the pork safety project. This is of high value, but not rare

<sup>126</sup> [http://www.dnv.com/binaries/Reputational\\_Management\\_tcm4-326818.pdf](http://www.dnv.com/binaries/Reputational_Management_tcm4-326818.pdf)

<sup>127</sup> [http://www.dnv.com/visualidentity/identity\\_components/logo/index.asp](http://www.dnv.com/visualidentity/identity_components/logo/index.asp)

<sup>128</sup> [http://www.dnv.com/visualidentity/brand\\_architecture/](http://www.dnv.com/visualidentity/brand_architecture/)

<sup>129</sup>

[http://www.dnv.com/press\\_area/press\\_releases/2009/dnvsignsagreementforchinahealthcareresearch.h.asp](http://www.dnv.com/press_area/press_releases/2009/dnvsignsagreementforchinahealthcareresearch.h.asp)



because most global firms have strong financial situations. The financial resources are well organized and moderately difficult to imitate, and for these reasons, this resource is a competitive parity (CP).

As for the *physical resources*, the strength lies in the new DNVSC office, strategically located in Beijing. This resource holds great value, as the DNVSC office was created in order to be present where potential clients are headquartered. An office of this kind is not rare or difficult to imitate, but it is well organized and functional. DNVHC's physical resources are therefore characterized as a CP.

The authors view the most important *technological resource* as the Norwegian traceability system for food safety, eTrace. This is of medium value for DNVHC, as it may not be directly transferrable to the Chinese pork safety market, but they can learn from this technology and use it as a guideline. DNV's traceability system is rare, due to the fact that it is relatively uncommon in the Chinese food safety industry. As for imitability, it is difficult and costly for competitors to imitate a traceability system of this kind. Regarding organization, DNVHC currently does not possess the resources it takes to work with a traceability system like this, but it is well organized in Norway. Consequently, this traceability system is considered as a CP.

The most relevant *organizational resources* for this thesis are DNV's *MIP process* and *CR programs*. The MIP process is highly valuable in terms of improving the effectiveness of communication and the positive consequences of having good communication. The execution of this process is rare because other companies in the industry cannot control it. The authors perceive this resource as well organized and moderately costly to imitate, and it is therefore characterized as a temporary competitive advantage (TCA). Although DNV's CR programs are highly developed, almost all global companies integrate CSR in their strategies nowadays. The resource of CR can be defined as valuable and properly organized, but easy to imitate and not rare, hence DNV's CR programs are categorized as a CP.

*Human resources* at DNV pose three vital resources: diversity, training, and knowledge and experience. *Diversity* in management and employees is of high value because a diverse workforce can pose many advantages. This resource is

well organized and costly to imitate, but moderately rare; hence it is a TCA for DNVHC. *Training* programs like The Journey and Top Tech are valuable to a company, and because they are developed internally by DNV, they are rare and difficult to imitate. In addition, the training programs are properly organized, and consequently this is a sustainable competitive advantage (SCA) for DNVHC. The DNVHC employees' *knowledge and experience* are comprehensive and diverse. In addition, DNVHC has the ability to acquire necessary knowledge and expertise, both internally from DNV and from external markets. This resource is considered valuable, rare, well organized and costly to imitate. With the proviso that DNV continues to focus on developing the best strategies for attracting, hiring, managing, developing and retaining a highly competent workforce, the authors concluded that DNVHC's knowledge and expertise is a SCA.

In terms of *innovation and creativity*, DNV focuses on the strategic research program Food and Biorisk through the DNV R&I unit, which is of high value for DNVHC. This strengthens the development and business activities in new projects, like a potential pork safety project for DNVHC. This resource is well organized within DNV. However, due to the fact that it is common to invest a lot of financial resources in R&D in this industry, the authors do not regard this resource as rare. Furthermore, imitation of this resource is considered to be moderately difficult and expensive for competitors, and the Food and Biorisk research program is therefore considered as a CP.

Regarding *brand*, DNV's brand is by the authors regarded to have moderate value for DNVHC. This is based on the fact that DNV has a strong and well-known brand in the international market, but in China it is primarily perceived as a maritime brand. The DNV brand is believed to be moderately rare, because to some extent, other companies and consumers control how a brand is perceived. A brand is difficult and costly for competitors to imitate, and the DNV brand is well organized and incorporated in the company's strategy. For DNVHC, the DNV brand is therefore characterized as a CP.

Resource	Valuable?	Rare?	Costly to Imitate?	Properly Organized?	Competitive Implications
Financial	Yes	No	Moderate	Yes	CP
Location	Yes	No	No	Yes	CP
eTrace	Moderate	Yes	Yes	Moderate	CP
MIP process	Yes	Yes	Moderate	Yes	TCA
CR programs	Yes	No	No	Yes	CP
Diversity	Yes	Moderate	Moderate	Yes	TCA
Training	Yes	Yes	Yes	Yes	SCA
Knowledge and experience	Yes	Yes	Yes	Yes	SCA
Food & Biorisk	Yes	No	Moderate	Yes	CP
Brand	Moderate	Moderate	Yes	Yes	CP

*Table 2: Summary of VRIO: Competitive Implications*

### *10.2.4 Conclusion of the VRIO Framework*

*Training programs and knowledge and experience* was characterized as DNVHC's SCAs. However, some of the knowledge is a result of extensive training, and training programs cannot be used in a positioning strategy. Based upon this, the authors concluded that the knowledge and experience of the employees is the most important SCA.

The knowledge and experience of their people should therefore be emphasized in DNVHC's positioning. This is consistent with what DNV sees as their most important asset: the people.

## Chapter 11: External Analysis of the Chinese Pork Safety Market

### 11.1 PESTEL Analysis

The PESTEL Analysis was a helpful tool that the authors used in order to analyze the environmental factors of the Chinese market, in which DNVHC wants to operate.

#### *11.1.1 Political factors*

China is a single-party socialist republic, where the state power is exercised through the Communist Party, the Central Government and their provincial and local counterparts. This entails a dual leadership system, which implies that both central and local governments make the decisions<sup>130</sup>. There are a lot of ministries and departments working directly under the State Council, especially within the food safety sector. In 2003, the Chinese government created the State Food and Drug Administration of China. The goal was that this department, under the leadership of the State Council, would consolidate food safety regulations.

However, there are still about ten departments sharing the responsibility to ensure food safety. These include the MOH (which is the main food security division), the State Food and Drug Administration, the State Drug Administration, the Ministry of Agriculture, the Ministry of Commerce, the State Administration for Industry and Commerce, the General Administration of Quality Supervision, Inspection and Quarantine, the Ministry of Science and Technology, and the National Institute of Nutrition and Food Safety. In addition, there are several provincial and local agencies monitoring local food production and sales.

No departments are individually responsible for food safety, there is no clear hierarchy between all the departments, and very often the departments have

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<sup>130</sup> <http://www.activeukchina.com/china-overview.html>

overlapping and unclear duties. Consequently, it is common that the monitoring system of food safety is unresponsive and slow<sup>131</sup>.

### *11.1.2 Economic factors*

China's economy is expected to grow by around 10.5 percent in 2011. Estimating past real gross domestic product (GDP) growth rates into the future, the size of the Chinese economy exceed that of the US in terms of purchasing power between 2012 and 2015; by 2025, China is likely to be the world's largest economic power by almost any measure<sup>132</sup>. Due to the economic growth, low pork prices and strong consumer preference for pork as the meat of choice, the Chinese total pork consumption rose five percent in 2009. Based on this, forecasts have claimed that the consumption would rise nearly four percent in 2010 and the following years<sup>133</sup>.

Furthermore, the economic growth and the increased income for Chinese people have caused a shift in social factors. How this affects the pork safety market is described more thoroughly in the following part about social factors.

Rising feed costs have become a threat to hog producers' returns, and this makes them evade the required standards related to feeding, which jeopardizes the pork safety. As a response to the Chinese inflation that hit in October 2010, China is embracing a more "prudent" monetary policy in the attempt to keep tighter control on inflation<sup>134</sup>.

### *11.1.3 Social factors*

As the Chinese consumer gets more money, the middle-class is increasing. The consumers follow middle-class buying habits, and are especially aware of the Western quality standards and brands.

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<sup>131</sup> [http://en.wikipedia.org/wiki/Food\\_safety\\_in\\_the\\_People's\\_Republic\\_of\\_China](http://en.wikipedia.org/wiki/Food_safety_in_the_People's_Republic_of_China)

<sup>132</sup> *China's Economic Growth 1978-2025: What We Know Today about China's Economic Growth Tomorrow*

<sup>133</sup> *People's Republic of China: Livestock and Products Semi-Annual FAS Beijing 2010*

<sup>134</sup>

[http://www.cggc.duke.edu/environment/valuechainanalysis/CGGC\\_Pork%20IndustryReport\\_10-3-08.pdf](http://www.cggc.duke.edu/environment/valuechainanalysis/CGGC_Pork%20IndustryReport_10-3-08.pdf)

Previous food safety scandals, for instance the dairy scandal in 2008, have contributed to increasing Chinese consumers' brand-loyalty towards brands that claim to be safe. Consumers are more aware of the risks of buying poisoned food, and they therefore wish to buy fresh and uncontaminated meat. The trend today is that many Chinese people move in to the urban cities from the rural areas, seeking jobs with higher salaries. Higher income and educational level makes people willing to pay more for secure and branded food. As mentioned earlier, A.T. Kearney states that over 95 percent of Chinese consumers think food safety is a very important criterion for their purchase behavior<sup>135</sup>.

In April 2011, Shanghai Daily reported that Chinese consumers are buying Clenbuterol detection test papers online and do experiments on their own, to find out if the pork is drug-tainted. As stated on Shanghai Daily's website, people lack knowledge and equipment to correctly conduct this test<sup>136</sup>. This shows how desperate the consumers are, and how scared they are of buying tainted pork.

#### *11.1.4 Technological factors*

China's emerging economy has for a long period benefitted from technology transfer from foreign investors, and Chinese manufacturers have many times been criticized for forcing foreign companies to share intellectual property before any contract would be signed<sup>137</sup>. However, after the government's announcement in 2006 of the Medium-to Long-Term Plan for the Development of Science and Technology, the Chinese leaders have shown their determination to make China a more "innovation-oriented" country by 2020<sup>138</sup>.

Over the last decade, Asia's stake in the R&D investment has increased significantly, with China as one of the leading spending countries in the world. A recently published report, written by Batelle Memorial Institute, reveals that China now is the second in global R&D investments with an expenditure of \$154

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<sup>135</sup> A.T. Kearney: *Food Safety in China: What it Means for Global Companies*

<sup>136</sup> <http://www.shanghaidaily.com/nsp/Metro/2011/04/01/Residents%2Btest%2Bpork%2Bfor%2Bdrug/>

<sup>137</sup> <http://www.economyincrisis.org/content/china-forcing-train-technology-transfer>

<sup>138</sup> [http://www.eiu.com/index.asp?layout=info&info\\_name=china\\_rd\\_spending&rf=0&mkt\\_tok=3RkMMJWWfF9wsRonu67MZKXonjHpfsX56uokUKeg3843lUFwdcjKpMjr1YIBTcF0dvycMRAVFZl5nQIRD7l](http://www.eiu.com/index.asp?layout=info&info_name=china_rd_spending&rf=0&mkt_tok=3RkMMJWWfF9wsRonu67MZKXonjHpfsX56uokUKeg3843lUFwdcjKpMjr1YIBTcF0dvycMRAVFZl5nQIRD7l)

billion, reflecting the government's effort to lead the country towards a high-value based economy<sup>139</sup>. "Agriculture and food production" is one of China's top priority investment fields, and the Chinese central government has taken concrete measures to improve the scientific level of the field of food safety in the country. During the 12<sup>th</sup> five-year plan (2011-2015), the government will increase their funding to improve county-level quality inspection centers as a step in the direction of ensuring proper food hygiene<sup>140</sup>.

Metal detection and x-ray inspection systems are two of the latest technological innovations in the food safety research field in China. These solutions contribute to a higher level of effectiveness and efficiency within product inspection, and can help manufacturers and other agents in the food supply chain to detect potential contaminations in their products. However, even though the technology is available to the agents in the pork supply chain, record keeping and documentation is not yet implemented in the pork production line. To prevent pork safety incidents from occurring, it is essential that advanced management tools like these are applied<sup>141</sup>.

### *11.1.5 Environmental factors*

Future climate change can have an impact on the agriculture and livestock industry in China. This could happen in different ways: firstly, increased instability in agricultural production, where the yields of wheat, rice and maize are likely to decline if no proper adaption measures are taken. This can lead to changes in the distribution and structure of agricultural production, as well as in cropping systems, which affects the pork feed. Secondly, a result of climate warming is increased frequency and duration of drought occurrence, which leads to shrinking grassland areas and reduction in agricultural productivity. Potentially increased rate of disease breakout for domestic animals is also a consequence of the climate change<sup>142</sup>, which is a threat to the pork safety market.

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<sup>139</sup> <http://www.battelle.org/aboutus/rd/2011.pdf>

<sup>140</sup> <http://www.asian-agribiz.com/Home/#7736>

<sup>141</sup> <http://www.manufacturing.net/Articles/2010/07/Ensuring-Food-Safety-In-China/?menuid=242>

<sup>142</sup>

<http://www.pewclimate.org/docUploads/ChinaNationalClimateChangeProgramme%20June%2007.pdf>

### 11.1.6 Legal factors

On February 28<sup>th</sup> 2009, a new food safety law was passed at the Seventh Session of the Standing Committee of the 11<sup>th</sup> National People's Congress of the People's Republic of China. *The Food Safety Law of the People's Republic of China* was implemented from June 1<sup>st</sup> in 2009, and *the Food Hygiene Law of the People's Republic of China* was invalidated<sup>143</sup>. This former law that regulated food safety, had not been revised since 1995, and China was in desperate need of better regulations. Vice Premier, Li Keqiang, stated the following about the matter:

*Food is essential, and safety should be a top priority. Food safety is closely related to people's lives and health, and economic development and social harmony*<sup>144</sup>.

The Food Safety Law covers many areas of food safety, such as clauses, monitoring and assessment of risks, standards, production and business operation, inspection, import and export, management of food safety accidents, supervision and administration, and legal liabilities. The overall goal is to guarantee food safety and secure people's health and life<sup>145</sup>.

## 11.2 Competitor Analysis

After conducting research on the food safety providers in China, the authors obtained information about whom they perceived as DNVHC's most important potential competitors. Because the pork safety issue in China is a multilayer problem, the authors have evaluated both providers of risk management, and one provider of food traceability systems. The competitors analyzed are the TÜV SÜD Group, CHINATRACE, SGS Group (formerly known as the Société Generale de Surveillance) and the British Standards Institution (BSI) Group.

Based on Michael Porter's *competitor analysis components*, the authors obtained information that was used to analyze the competitors. Furthermore, the authors used Porter's model of generic strategies to define each company's competitive strategy.

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<sup>143</sup> [http://www.bjreview.com.cn/document/txt/2011-03/03/content\\_337135\\_2.htm](http://www.bjreview.com.cn/document/txt/2011-03/03/content_337135_2.htm)

<sup>144</sup> [http://news.xinhuanet.com/english2010/china/2010-04/20/c\\_13258667.htm](http://news.xinhuanet.com/english2010/china/2010-04/20/c_13258667.htm)

<sup>145</sup> [http://www.bjreview.com.cn/document/txt/2011-03/03/content\\_337135\\_2.htm](http://www.bjreview.com.cn/document/txt/2011-03/03/content_337135_2.htm)



According to Jinsong Gao, local providers are typically more cost-driven than international providers. Local providers usually have better local governmental relationships, better local knowledge on each connecting point in the value chain, and more extensive knowledge on how everything is structured in the industry. On the other hand, international providers typically have many successful cases, meaning that they have more experience and expertise from the specific industry.

### 11.2.1 TÜV SÜD Group

TÜV SÜD Greater China is a subsidiary of TÜV SÜD AG, which has its headquarters in Germany. TÜV SÜD AG is a global Quality Systems Registrar that has been a major player in the food safety market in Europe. In the Chinese food safety market, TÜV SÜD can provide services like auditing/certification, workshops and Webinars, Traceability Services, Food Bio Security, Animal Welfare, Specialized Programs, and Food and Nutrition testing services. TÜV SÜD can help companies to improve operational efficiency, increase transparency within the supply chain, add impartiality into the sourcing mechanism, and offer insights on improving process systems<sup>146</sup>.

#### Objective

TÜV SÜD's ambition has always been:

*To be the leading national and international service provider in the fields of safety, quality and sustainability<sup>147</sup>.*

#### Assumptions

TÜV SÜD has had great success as a food safety provider in Europe. The company now acknowledges the recent Chinese food safety trends, and they want to utilize their experience and knowledge in China by supporting clients *with sustainable solutions to ensure traceability across their value chains<sup>148</sup>.*

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<sup>146</sup> TÜV SÜD: Food Safety Services

<sup>147</sup> [https://www.tuev-sued.de/company/about\\_tuev\\_sued/about\\_us/annual\\_report](https://www.tuev-sued.de/company/about_tuev_sued/about_us/annual_report)

<sup>148</sup> [http://www.tuv-sud.cn/journal-asia-download-file/items/tuev-sued-journal-asia\\_2nd-issue-2010.html](http://www.tuv-sud.cn/journal-asia-download-file/items/tuev-sued-journal-asia_2nd-issue-2010.html)

### *Strategy*

TÜV SÜD operates in around 50 countries on all continents providing a broad range of services, with focus on high quality of innovation, products and systems<sup>149</sup>. Through mergers and acquisitions, TÜV SÜD continues to expand their global operations<sup>150</sup>. Because of their focus on product uniqueness and their broad target scope, the authors perceive TÜV SÜD as a differentiator in the Chinese market.

### *Resources and Capabilities*

While TÜV SÜD's assumptions, objectives and current strategy imply how they might want to respond to a competitive attack, their resources and capabilities determine their ability to respond effectively<sup>151</sup>. TÜV SÜD's certified experts and technical consultants provide services in every part of their clients' value chains<sup>152</sup>, aiming to protect brands, ensure quality and reduce risks. Even though they experienced a percentage collapse in the Asia-Pacific markets in 2008, TÜV SÜD was able to increase their revenue seven percent compared to the prior year. They achieved this by continuous diversification of their product portfolio of services. TÜV SÜD had € 1,426.7 million revenue in 2009, a 4.5 percent increase from 2008. TÜV SÜD's 1,400 employees participate in extensive training programs to assure that their knowledge is abreast with the continuous technology development and innovation. In addition, TÜV SÜD has advanced technology solutions. An example of this is their complete traceability system for meat, which sets standards and secures safety<sup>153</sup>. TÜV SÜD Greater China is headquartered in Shanghai, with 12 offices in other regions<sup>154</sup>.

<sup>149</sup> [http://www.tuev-sued.com/global\\_services\\_solutions](http://www.tuev-sued.com/global_services_solutions)

<sup>150</sup> <http://www.tuv-sud.cn/company-news-detail-page/items/tuev-sued-continues-its-course-of-growth.html>

<sup>151</sup> <http://www.quickmba.com/strategy/generic.shtml>

<sup>152</sup> <http://www.tuv-sud.cn/locations-in-greater-china.html>

<sup>153</sup> [https://www.tuev-sued.de/company/about\\_tuev\\_sued/about\\_us/annual\\_report](https://www.tuev-sued.de/company/about_tuev_sued/about_us/annual_report)

<sup>154</sup> <http://www.tuv-sud.cn/>

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### *Competitor Response Profile*

Based on TÜV SÜD's objectives, assumptions, strategy and capabilities a response profile indicating possible future moves can be made<sup>155</sup>. TÜV SÜD aims to become a leading national and international provider of its services by exploiting a strategy of expanding both global operations and product portfolio. Their presence through headquarters and offices in the Chinese market, make them able to act local, mobilize and adapt to a competitive environment. Based on the abovementioned assumption and possession of resources, especially technological resources, TÜV SÜD is likely to become an offensive actor in the Chinese pork safety and traceability market.

#### *11.2.2 CHINATRACE*

CHINATRACE is a joint venture between Trace Tracker and Shandong Institute of Standardization. Trace Tracker is an international leader in global information for food industry. Shandong Institute of Standardization is national leader in developing and implementing traceability solutions. CHINATRACE provides information of Chinese food products and their ingredients. By creating "food passports" that trace every stage of production, processing and distribution all the way from the source to supermarket shelf, they provide vital information to enable trade partners to interact across supply chains.

#### *Objective*

CHINATRACE's objective is to introduce proven and affordable technology solutions to the food industry. Their mission is:

*... to assist the food industry and authorities in preventing, containing and resolving food quality and safety issues. At the same time, we contribute to continued growth and long-term perspective for Chinese food exports and domestic consumption.*

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<sup>155</sup> <http://www.netmba.com/strategy/competitor-analysis/>

### *Assumptions*

CHINATRACE recognizes the food safety demands in China, and they seem confident on their position as a local actor in the food safety market. *At CHINATRACE, we aim to boost the 'Made in China' brand in both domestic and export markets*<sup>156</sup>.

### *Strategy*

CHINATRACE establishes strategic partnerships when working on particular food safety projects in China. In 2010, they announced a partnership with Trace Register, LLC., a global food traceability company<sup>157</sup>.

As the authors have mentioned, CHINATRACE's objective is to introduce proven and affordable technology solutions to agriculture and food industry in China. According to Jinsong Gao, national companies in China tend to be more cost-driven compared to international actors. Because CHINATRACE focuses on providing *affordable technology solutions*, and concentrate on a narrow segment; online food traceability system, the authors perceive that CHINATRACE undertakes what Porter describes as a cost-effective focus strategy.

### *Resources and Capabilities*

CHINATRACE's core competency is knowledge in technology and traceability systems. They have traceability solutions for the pork and poultry market<sup>158</sup>. Because they are a local provider of these services, the authors assume that CHINATRACE's connections and relationships with local authorities and the national government are better than the international actors. Furthermore, as a Chinese company, they should not have any problems adapting and mobilizing in the food safety market in China. As described in research limitations, the authors lack detailed information about CHINATRACE, and this also applies for financial numbers. However, based on the company's objectives and assumptions, the authors perceive that the company possesses the required resources to expand in the pork safety market.

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<sup>156</sup> [http://www.chinatrace.com.cn/index\\_en.htm](http://www.chinatrace.com.cn/index_en.htm)

<sup>157</sup> [http://www.traceregister.com/press\\_releases/2010-11-02\\_ChinaTrace.pdf](http://www.traceregister.com/press_releases/2010-11-02_ChinaTrace.pdf)

<sup>158</sup> <http://www.chinatrace.com.cn/english/CaseView.asp?ID=104>

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### *Competitor Response Profile*

The authors find it reasonable to assume that CHINATRACE is likely to strengthen their current position in the pork safety market. Due to the fact that CHINATRACE does not offer risk management and standardization services, they are not in direct competition with DNVHC. However, like CHINATRACE has done in prior projects, they can establish strategic partnerships with companies that offer these services and become serious competitor for DNVHC.

#### *11.2.3 SGS*

The Swiss company, SGS, started by offering agricultural inspection services to grain traders in Europe. Today they operate a network of over 1,250 laboratories and offices, and have more than 64,000 employees worldwide. By providing specialized and sustainable business solutions that reduce risk, improve quality, safety and productivity, they help customers maneuver a progressively regulated world. Like DNVFS, SGS provides services to ensure food safety and quality<sup>159</sup>.

In China, SGS has established a joint venture with China Standard Technology Development Corporation (CSTC), under the State Administration of Quality Technical Supervision. SGS-CSTC was founded in 1991 and features over 50 branches and several laboratories with over 9,000 professional employees<sup>160</sup>.

#### *Objective*

SGS' objective is to be *the most competitive and the most productive service organization in the world... we help customers all over the world operate in a more sustainable manner by improving quality and productivity, reducing risk, verify compliance and increase speed to the market*<sup>161</sup>.

#### *Assumptions*

In 2007, SGS held a conference called the Food Safety Symposium In Bright May. Their aim was to become a sustainable strategic partner of food enterprises, provide professional and efficient services to improve the safety and quality of

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<sup>159</sup> [http://www.sgs.com/about\\_sgs/in\\_brief.htm](http://www.sgs.com/about_sgs/in_brief.htm)

<sup>160</sup> [http://www.cn.sgs.com/in\\_brief\\_cn](http://www.cn.sgs.com/in_brief_cn)

<sup>161</sup> [http://www.sgs.com/about\\_sgs/in\\_brief.htm](http://www.sgs.com/about_sgs/in_brief.htm)

Chinese food, and bring the Chinese food industry in line with international standards<sup>162</sup>. In 2010, SGS' Director of Food in China, Michael Zhu, spoke at the China International Food Safety and Quality Conference, where he emphasized the importance of third-party involvement in supply chain integration<sup>163</sup>.

### *Strategy*

SGS expands their operations mainly through organic growth<sup>164</sup>, and to some extent by acquisitions. In order to turn into a “domestic player” in China, SGS recently acquired the Tianjin Tianbao Construction Materials Testing Company based in China's third largest economic development zone, Tianjin Binhai. Tianbao, with its accreditation and qualifications, offers SGS direct access to the fast growing Tianjin market<sup>165</sup>.

According to Jinsong Gao, SGS' strategy is mainly based on expanding their market share rather than gaining the highest profitability. They operate in a broad target scope, providing services that are in a lower price range than both DNVHC's and BSI's solutions. Because of this the authors perceive SGS as pursuing a cost-leadership strategy.

### *Resources and Capabilities*

SGS is located in 26 cities in China, which gives them the ability to swiftly adapt and mobilize in the Chinese food safety market<sup>166</sup>. Because of their wide localization in China, which features over 50 branches, and the fact that they entered this market 20 years ago, the authors assume that SGS has established good relationships with the local and central government.

SGS has won several accolades, such as: “Best Inspection and Certification Enterprise Award”, “Most Reliable Foreign Trade Services Provider”, “China Best Customer Service Special Award” and “Quick Response Corporate and

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<sup>162</sup> [http://www.cn.sgs.com/sgs\\_food\\_safety\\_seminar\\_in\\_golden\\_may\\_cn?viewId=5598](http://www.cn.sgs.com/sgs_food_safety_seminar_in_golden_may_cn?viewId=5598)

<sup>163</sup> [http://www.foodlogistics.com/web/online/Off-The-Wire/SGS-to-Speak-at-China-International-Food-Safety-and-Quality-Conference/20\\$4145](http://www.foodlogistics.com/web/online/Off-The-Wire/SGS-to-Speak-at-China-International-Food-Safety-and-Quality-Conference/20$4145)

<sup>164</sup> [http://www.sgs.com/files/pdf/SGS\\_2010\\_FYR\\_presentation.pdf](http://www.sgs.com/files/pdf/SGS_2010_FYR_presentation.pdf)

<sup>165</sup> <http://www.chinapost.com.tw/business/asia-china/2011/01/11/287119/SGS-inspection.htm>

<sup>166</sup> <http://www.made-in-china.com/audited-suppliers/for-suppliers/who-is-sgs.html>

Innovative Services”<sup>167</sup>. This reflects their strengths, and proves that SGS is capable of using their abilities to react to the competitive dynamic environment.

### *Competitor Response Profile*

SGS has for many years paid close attention to the food quality and safety in China, with the agenda to become an important actor in this market. However, their outlook for 2011 is still to introduce supply chain services in China, thus the authors perceive that SGS has not yet established a solid position in this market.

Compared to other international players in the Chinese food safety market, SGS distinguish themselves by exploiting a cost leadership strategy, rather than focus on gaining the highest attainable profit. The authors assume that SGS will continue to pursue this strategy in the future. SGS sees great potential in the food safety market in China, and because of this, the authors conclude that they are likely to keep their focus on gaining larger market share in the industry.

### *11.2.4 BSI GROUP*

The British company, BSI Group, is one of the global leaders in business services, providing standard-based solutions, certification and training to customers all over the world. The company operates in different areas within risk management, including food safety, where they develop private, national and international standards, provide performance management, as well as supply chain management software solutions<sup>168</sup>. BSI Group established their first Asian office in Hong Kong in 1995<sup>169</sup>.

### *Objective*

BSI Group’s vision is to be<sup>170</sup>:

*A global independent business services organization that inspires confidence and delivers assurance to all our customers with standards-based solutions.*

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<sup>167</sup> [http://www.cn.sgs.com/home\\_cn\\_v2/in\\_brief\\_cn.htm?selen=1&](http://www.cn.sgs.com/home_cn_v2/in_brief_cn.htm?selen=1&)

<sup>168</sup> <http://www.bsigroup.com/en/About-BSI/>

<sup>169</sup> <http://www.bsigroup.com/en/About-BSI/About-BSI-Group/BSI-History/>

<sup>170</sup> <http://www.bsigroup.com/en/About-BSI/About-BSI-Group/BSI-Vision/>

### *Assumptions*

BSI Group recognizes the change in consumer trends, which leads to a global demand for food safety, and they want to utilize their successful experience, especially in the UK market, to help companies in China secure their supply chains through food safety management systems<sup>171</sup>.

### *Strategy*

Since 1991, BSI Group has expanded globally by acquiring companies all over the world<sup>172</sup>. To consolidate the company's penetration of the China certification market, they acquired 100 percent of the BSI Pacific Ltd. in 2003. Their intention was to make BSI Group the first choice of international registrar for businesses throughout China and the entire Asia region<sup>173</sup>. As a result of acquisitions as strategic moves, and more than a century of growth, BSI Group delivers a comprehensive business services portfolio to clients in various disciplines and sectors<sup>174</sup>. According to Jinsong Gao, BSI Group offers lower prices on their services compared to DNV. However, the company focuses on delivering assurance of quality to all clients, thus the authors perceive that BSI Group does not seek to become a cost leader. Based on this, the authors conclude that BSI Group undertakes a differentiation strategy to serve a wide industry.

### *Resources and Capabilities*

BSI Group has developed their own software solution called Entropy, which is used by leading organizations in more than 14,000 sites around the world. Entropy Software Solution aims to help companies improve business performance and manage risk within Environmental Management, Quality Management, Occupational Health & Safety, Information Security Management, and Supply Chain Management<sup>175</sup>.

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<sup>171</sup> <http://www.bsigroup.hk/en/Assessment-and-certification-services/Management-systems/Business-areas/Food-safety-management/>

<sup>172</sup> <http://www.bsigroup.com/en/About-BSI/About-BSI-Group/BSI-History/>

<sup>173</sup> <http://www.bsigroup.com/en/About-BSI/News-Room/BSI-News-Content/Disciplines/Business-Continuity/BSI-Shaping-the-future-in-Greater-China/>

<sup>174</sup> <http://www.bsigroup.com/en/About-BSI/About-BSI-Group/BSI-History/>

<sup>175</sup> <http://www.bsigroup.com/en/Assessment-and-certification-services/management-systems/our-services/Entropy-System-Management-Software-Solution>



BSI Group experienced, according to the annual report of 2009, a business interruption in China at the end of 2008. The interruption regarded accreditation issues, which had an impact on their assessment and training activities. However, BSI Group had a strong recovery in 2009. This indicates that they are capable of reacting swiftly to change even when they seem to experience problems.

In the annual report of 2009, the Chairman of BSI Group stated that they developed a close and valuable cooperation with the Administration of Certification and Accreditation of China<sup>176</sup>. This proves that BSI Group has the ability to interact with influential people, and is building a relationship with the Chinese government.

### *Competitor Response Profile*

Based on BSI Group's expansion strategy, the authors perceive the company as financially capable of entering new markets they find desirable. Due to the fact that BSI Group recognize the rising demand for food safety in China and are establishing relationships with decision-makers within the Chinese bureaucracy, the authors assume that BSI Group would want to compete in the Chinese pork safety market if they comprehend that there is a market potential.

### *11.2.5 Conclusion*

Based on this analysis, the authors made a matrix showing the competitors' position in the industry according to Porter's Generic Strategies. The authors are aware that there are other potential international competitors in the food safety market in China that might also see opportunities in the pork safety market. However, the current competitive situation for third-party consulting companies can be described as concentrated. Based on the internal analysis of DNVHC, they have a differentiation strategy that focus on high price and high quality, and they operate in a broad target scope.

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<sup>176</sup>

[http://www.bsigroup.com/upload/Corporate%20Marketing/Financial%20Performance/BSI\\_Group\\_Annual\\_Report\\_and\\_Financial\\_Statements\\_2009.pdf](http://www.bsigroup.com/upload/Corporate%20Marketing/Financial%20Performance/BSI_Group_Annual_Report_and_Financial_Statements_2009.pdf)



Figure 12: Competition Matrix

## 11.3 Porter's Five Forces

In order to make this model applicable to this thesis, the authors had to make certain adjustments. The reason for this was that the Five Forces model was developed for manufacturing industries, and that in this case the authors were studying a consulting industry within pork safety.

### 11.3.1 Competitive Rivalry

#### *Number of Firms and Market Growth*

The pork safety market in China is relatively new, and due to rising demand, the industry is growing fast. According to Kenneth Garnett, the Chinese pork safety market is reactive, not proactive, and the recent scandals in pork contamination have aroused the need for consulting services within food safety. Based on the authors' competitor analysis, the Chinese pork safety industry seems to be characterized as concentrated with few, but large, companies, which indicates low competitive rivalry<sup>177</sup>.

<sup>177</sup> <http://www.quickmba.com/strategy/porter.shtml>

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*Costs (switching and storage)*

Low costs of switching brands indicate high degree of rivalry. When DNVHC delivers the finished product to a client, the costs of switching to another supplier are very high; hence this contributes to a lower degree of rivalry. Due to the fact that DNVHC's product is a service, and the industry as a whole provides services, there are no storage costs, which also lead to a lower degree of rivalry<sup>178</sup>.

*Product Differentiation*

As DNVHC's services still remains to be developed, it is hard to make assumptions on product differentiation in the pork safety industry. However, it is relatively safe to say that different food safety problems may require different solutions. Different standards for food safety may be applied, and a traceability system may require different software systems. Based on this, the authors believe that the product differentiation is high, which indicates lower rivalry<sup>179</sup>.

A brand can distinguish one competitor from another when product differentiation is low, and this can enhance rivalry. However, based on DNVHC's resource analysis, the DNV brand was characterized as a competitive parity. DNVHC cannot rely on their brand in this industry as a competitive advantage.

*Strategic Stakes and Exit Barriers*

As mentioned, DNVHC views the pork safety issues as a market opportunity, and assumes that this market holds great potential for profit. Hence, the strategic stakes are high, which increases the intensity of rivalry within the Chinese pork safety industry.

DNVSC does not rely upon the pork safety industry to survive in the Chinese market; they see the pork safety demand as an opportunity to further expand their service portfolio. DNVHC does not face high exit barriers in this industry, as they have not made any investments in food safety projects yet. However, it is important for DNVHC to acknowledge that involvement in this type of industry

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<sup>178</sup> <http://www.quickmba.com/strategy/porter.shtml>

<sup>179</sup> <http://www.quickmba.com/strategy/porter.shtml>

requires high investments and long-term commitment to clients; hence exit barriers might be high if DNVHC decides to enter this industry<sup>180</sup>.

### *Diversity of Competitors*

The companies that the authors identified in the competitor analysis, points to high degree of cultural, historical and philosophical diversity, with backgrounds ranging from Chinese, German, Swiss to British. High degree of diversity of competitors can make rivalry unpredictable and intense<sup>181</sup>.

### *Conclusion of Rivalry*

Most of the factors reviewed indicate low competitive rivalry within the pork safety market. In this new and rapidly growing market, there are currently relatively few potential competitors. In addition to this, high switching costs, high product differentiation, high strategic stakes, potentially high exit barriers and high diversity are reasons for a medium degree of competitive rivalry.

### *11.3.2 Threat of Potential Entrants*

In the PESTEL analysis, the authors described the different governmental ministries that regulate the food safety market. Compared to other countries, governmental restrictions are more present in China, but after entering the World Trade Organization (WTO) in 2001, the Chinese government has abolished several trade barriers<sup>182</sup>. However, it is the Chinese government that accredits which third-party companies that are allowed to set standards and give certifications within the food safety industry. This contributes to higher entry barriers in this particular industry<sup>183</sup>.

If a company is required to invest in advanced technology, production facilities or specialized equipment that is not easily transferable to other industries, they may feel reluctant to enter a new market. In the consulting business, investments in such asset specificities are not required. This contributes to lower entry barriers. Furthermore, when dealing with consulting business, economies of scale does not

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<sup>180</sup> <http://www.quickmba.com/strategy/porter.shtml>

<sup>181</sup> <http://www.quickmba.com/strategy/porter.shtml>

<sup>182</sup> [http://www.wto.org/english/news\\_e/pres01\\_e/pr243\\_e.htm](http://www.wto.org/english/news_e/pres01_e/pr243_e.htm)

<sup>183</sup> <http://www.quickmba.com/strategy/porter.shtml>

create entry barriers due to the fact that cost efficiency through for example lower unit cost for production is not achievable<sup>184</sup>.

### *Conclusion of potential entrants*

Although the Chinese government contributes to create entry barriers in the food safety market, asset specificity and economies of scale do not represent a barrier for potential entrants in this particular industry. Based on this, the authors conclude that the threat of potential entrants can be considered as moderate to high.

### *11.3.3 Bargaining Power of Suppliers*

Due to the fact that DNVHC operates in the consulting industry, it seemed right to view the people providing DNVHC with the right knowledge and experience as the suppliers in the pork safety industry.

Because the services that DNVHC can offer within pork safety may not be standardized they would require different knowledge from project to project, and this indicates a possibility of high bargaining power of suppliers. The final consumer in the supply chain of pork is powerful, which can be another indicator of high bargaining power. DNVHC's costs of switching suppliers are high, but also necessary in order to provide their customer with the right kind of knowledge and experience<sup>185</sup>.

### *Conclusion of Suppliers*

The bargaining power of suppliers is considered to be moderate. This is due to high product differentiation that requires different knowledge and experience, regardless of costs.

### *11.3.4 Bargaining Power of Buyers*

As stated earlier in the thesis, food safety is a high priority for the Chinese government in 2011. Due to this, the authors perceive the central Chinese government as an important influencer, whereas the buyers are considered to be

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<sup>184</sup> <http://www.quickmba.com/strategy/porter.shtml>

<sup>185</sup> <http://www.quickmba.com/strategy/porter.shtml>

the local governments. Other potential buyers could be companies within value chains of food. Such companies could be major retailers, especially if China continues to follow the international trends on pork safety, where retailers demand traceability and safety of fresh meat. Companies of this kind may want to buy consulting services within pork safety. If the government were to become a buyer of pork safety services, they would possess a high degree of bargaining power. According to Jinsong Gao, DNVHC is highly recognized by the Chinese government, as he has received goodwill from several of the ministers. If the buyer purchases and implements DNVHC's services, the costs of switching supplier will be high, and this factor can contribute to lower bargaining power of the buyer<sup>186</sup>.

### *Conclusion of Buyer*

As mentioned, the degree of bargaining power highly depends on who the buyer is. The Chinese government's bargaining power can be characterized as high, whereas potential clients in the pork value chain such as retailers possess a moderate degree of bargaining power.

### *11.3.5 Threat of Substitutes*

Traditionally, products from other industries that satisfy the same needs are considered substitutes. However, because this is a consulting industry, the authors chose to analyze substitutes differently. As Kenneth Garnett characterizes the pork safety market as reactive rather than proactive, the increasing demand for food safety is a result of incidents. This entails that agents in the food value chains are experiencing the need for traceability of their products, rather than the need for risk management and implementation of new safety standards. Because of this, the authors chose to define substitutes for DNVHC as those companies that only offer food traceability systems. From the competitor analysis, the authors found that CHINATRACE is an example of this. Because they only offer traceability systems, their products are priced lower than DNVHC's consulting services. However, considering that these products do not directly replace DNVHC's services, the traditional price competition that may arise in the industry because of

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<sup>186</sup> <http://www.quickmba.com/strategy/porter.shtml>

the threats of substitutes, are not as relevant. DNVHC's challenge is not to compete on price, but rather to address those clients who are willing to pay more for a comprehensive safety solution<sup>187</sup>.

### *Conclusion of Substitutes*

The threat of substitutes exists when a product's demand is affected by price changes of substitute products. The presented substitutes are lower priced than the services that DNVHC offers. A traceability system is not characterized as a proactive solution; hence the importance for DNVHC lies in making agents in value chains of food aware of their sustainable and proactive solutions to secure pork safety. Due to the tendencies in the pork safety demand, and that this market is currently more reactive rather than proactive, the threat of substitutes is considered moderate.

### *11.3.6 Conclusion of Porter's Five Forces*

The influencing factors regarding Porter's Five Forces indicate a moderate degree of rivalry in the industry. The threat of potential entrants is considered as moderate to high due to governmental control, and bargaining power of suppliers is also considered as moderate due to high switching costs and high product differentiation. The bargaining power of buyers, depend much upon whom the client is, but can overall be described as moderate to high. The authors concluded that the threats of substitutes are moderate, when considering traceability systems as substitutes for certification and consulting services.

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<sup>187</sup> <http://www.quickmba.com/strategy/porter.shtml>

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## Chapter 12: Findings and Conclusions

RQ1: *How is the pork safety market in China structured, and are there any international market trends that can be expected to influence the development of this market in China?*

The Chinese pork safety market faces several problems, especially in terms of governmental issues, lack of standards, and the implementation and overseeing of such standards. The Clenbuterol used in pig feed is suspected to be just one of many illegal drugs used in Chinese pork production. Most of the pork in China is produced through backyard farming, and because of this, illegal slaughtering is still a problem despite the government's attempts to control this. Highly underdeveloped and inefficient transportation systems and multiple middlemen are also important characteristics of the Chinese pork market.

In contrast to China, most of the pork production in developed countries is already commercialized, and the supply chains are vertically integrated. In addition to the extensive standards required by the governments, retailers often set own standards and requirements for their suppliers. Other international trends are increasingly high customer demands, and traceability systems. Due to rapidly increasing globalization in China, membership in WTO and a more open economy, it is probable to assume that these international trends will influence the development of Chinese pork safety. The Chinese trends of more commercialized production, fast-growing numbers of supermarkets and chain stores, and increasing awareness among customers are tendencies of a more Western market.

RQ2: *What is the current competitive situation in the Chinese food safety market?*

The competitors that the authors have analyzed are mostly large international corporations, which acknowledge the potential in the food safety market in China. In addition, there are probably local actors that will strive for market a share. The companies that the authors perceive as potential competitors for DNVHC are characterized as large multinational companies that offer similar third-party services. The current competitive structure in the third-party consulting industry, can according to the authors' competitor analysis, be described as concentrated.



The factors reviewed in Porter's Five Forces indicate a low to medium degree of rivalry in the industry. However, the competition can increase as other local and international actors might see the potential in this rapidly growing market.

RQ3: *What market obstacles can DNVHC expect to encounter when entering the Chinese pork safety market?*

As reviewed under political factors in the PESTEL analysis, the Chinese government regulates the food safety industry, which also applies to the pork safety market. There are ten different ministries regulating, overseeing and controlling this market, and consequently it can be difficult for a foreign company like DNVHC to fully comprehend how the market is structured. The authors perceive this as an obstacle for DNVHC. Another obstacle can be that local providers tend to have better governmental relationships and better knowledge on each connecting point in the value chain compared to DNVHC.

Chinese people mainly relate DNV in China to the maritime and shipping industry. Thus, it can be a challenge for DNVHC to be acknowledged as a pork safety provider.

As a result of the actions in the pork safety being more reactive than proactive, the current trend is that agents in the pork supply chain seem to be more focused on implementing food traceability systems, rather than hiring a third-party like DNVHC to help implement standards and manage risk. Hence, another obstacle for DNVHC can be to convince actors in the pork supply chain that they actually need a comprehensive safety solution.

RQ4: *What is DNVHC's most important competitive advantage and what can DNVHC do in order to keep it sustainable?*

DNV possesses an integrated global orientation and DNVHC has strong growth ambitions in the Chinese market. This is embodied through the competence and attitudes of both the employees and management. Because DNVHC is a knowledge-based company, their core competencies rely heavily upon the human resources; hence the knowledge and expertise of their employees accounts for DNVHC's most important competitive advantage. In order to keep this competitive advantage sustainable, DNVHC has taken great measures in training

and developing their employees. Also, the company emphasizes the importance of attracting and recruiting people that possess the right attitudes, in addition to high levels of knowledge and capabilities. To create diversity in their workforce, DNVHC focuses on hiring people with different personalities, gender, age and nationalities. At DNVSC, people with distinctive backgrounds are re-educated and trained in order to be able to work on projects within various sectors in the future. Furthermore, the company is continuously monitoring their employees' level of satisfaction through performance management systems. DNVSC's working facilities contributes to enhance the ergonomic experience at work, thus also the quality of the employees' output.

DNVHC's success in keeping their employees as a sustainable competitive advantage depends on their ability to continue to attract, recruit, train, develop, motivate and monitor their human resources. Investments in this value-creating asset, will contribute to DNVHC's capability to compete in the pork safety market in China.

## Part IV – Strategic Planning

### Chapter 13: SWOT

By using a weighted SWOT analysis with matrixes, the authors have presented DNVHC's internal strengths and weaknesses, and external opportunities and threats. All strengths, weaknesses, opportunities and threats were based on the finding from part III.

#### 13.1 Strengths and Weaknesses Matrix

The Strengths and Weaknesses Matrix illustrates DNVHC's strengths and weaknesses, and observes according to these factors, where efforts should be focused in order to enhance strengths and correct weaknesses<sup>188</sup>.

##### *DNVHC's Strengths*

	<b>Marketing</b>	<b>Importance</b>	<b>Performance</b>
1	Company reputation	5	4
2	Market orientation	4	4
3	Service quality	5	5
	<b>Finance</b>		
4	Financial stability	4	4
5	R&D/R&I investments	3	5
	<b>Manufacturing</b>		
6	Strategic office location	4	5
	<b>Organization</b>		
7	CSR	4	4
8	Human resources	5	5
9	Cultural understanding	5	4
10	International experience in food safety	4	4
11	Government Relations	5	5

**Table 3: DNVHC's Strengths**

*Importance: (1) = Very low, (3) = Medium, (5) = Very high*

*Performance: (1) = Major weakness, (3) = Neutral, (5) = Major strength*

<sup>188</sup> Kotler and Keller. 2009: 92

### DNVHC's Weaknesses

	<b>Marketing</b>	<b>Importance</b>	<b>Performance</b>
12	Experience within food safety in China	3	1
	<b>Manufacturing</b>		
13	Traceability system in China	5	3
	<b>Organization</b>		
14	Food safety division at DNVSC	3	2

Table 4: DNVHC's Weaknesses

Importance: (1) = Very low, (3) = Medium, (5) = Very high

Performance: (1) = Major weakness, (3) = Neutral, (5) = Major strength

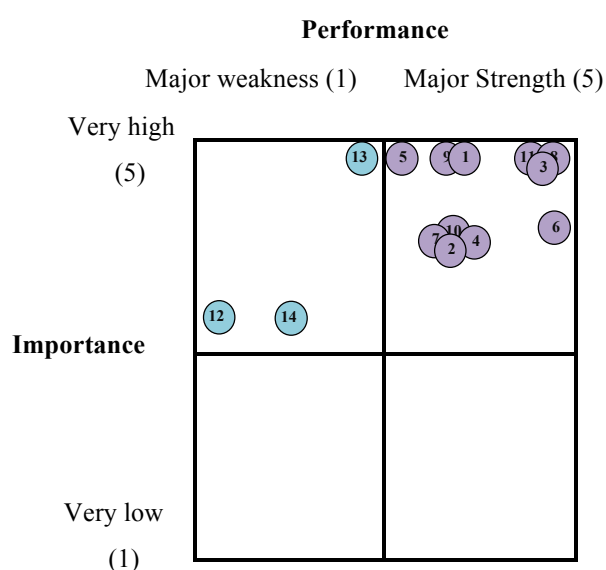


Figure 13: Strengths and Weaknesses Matrix

## 13.2 Opportunity Matrix

The opportunity Matrix describes DNVHC's opportunities and identifies which ones are worth monitoring in the event of improvement<sup>189</sup>.

### DNVHC's Opportunities

	<b>Market Development</b>	<b>Attractiveness</b>	<b>Probability of Success</b>
1	Increasing demand of pork safety	5	4
2	Government spending	5	4
3	Fast growing market	5	4
4	Goodwill	4	5

Table 5: DNVHC's Opportunities

<sup>189</sup> Kotler and Keller. 2009: 91

Attractiveness: (1) = Low, (3) = Neutral, (5) = High

Probability of success: (1) = Low, (3) = Neutral, (5) = High

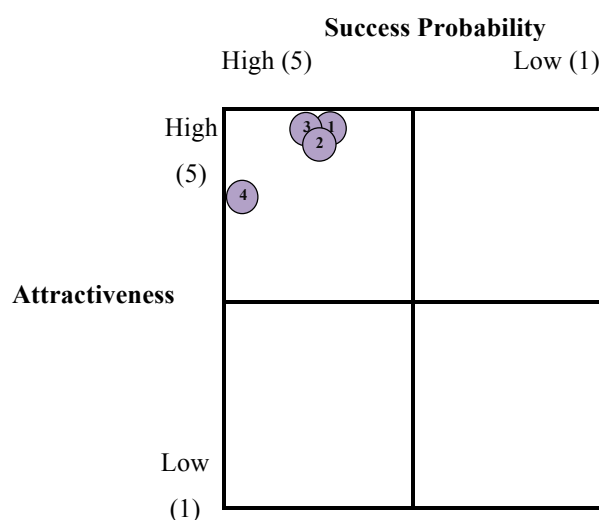


Figure 14: Opportunity Matrix

### 13.3 Threat Matrix

The Threat Matrix shows which threats DNVHC should carefully monitor because of high probability of occurrence. This way DNVHC can prepare to meet serious future threats<sup>190</sup>.

#### DNVHC's Threats

	<b>Industry</b>	<b>Seriousness</b>	<b>Probability of Occurrence</b>
1	Competitors	5	5
2	Substitutes	4	3
	<b>Political and legal factors</b>		
3	Government restrictions	5	3
	<b>Market Development</b>		
4	Brand Association	5	5

Table 6: DNVHC's Threats

Attractiveness: (1) = Low, (3) = Neutral, (5) = High

Probability of occurrence: (1) = Low, (3) = Neutral, (5) = High

<sup>190</sup> Kotler and Keller. 2009: 91-92

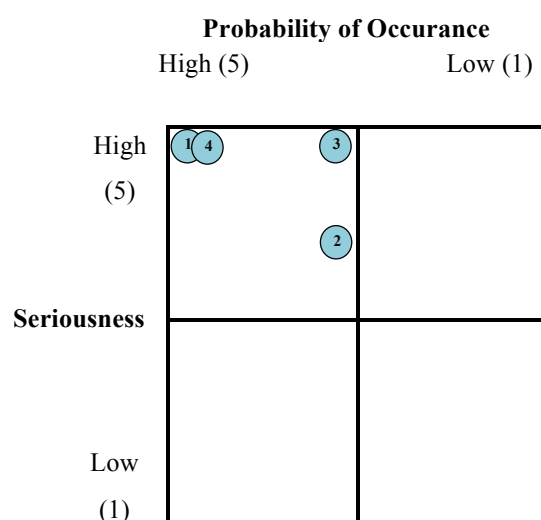


Figure 15: Threat Matrix

## 13.4 Summary of SWOT

	<b><i>DNVHC's Major Strengths</i></b>	<b><i>Importance</i></b>	<b><i>Performance</i></b>
1	Company Reputation	5	4
2	Service Quality	5	5
3	Human Resources	5	5
4	Cultural Understanding	5	4
5	Government Relations	5	5
	<b><i>DNVHC's Major Weaknesses</i></b>	<b><i>Importance</i></b>	<b><i>Performance</i></b>
1	Experience Within Food Safety in China	3	1
2	Traceability System in China	3	3
3	Food Safety division at DNVHC	3	2
	<b><i>DNVHC's Major Opportunities</i></b>	<b><i>Attractiveness</i></b>	<b><i>Probability of Success</i></b>
1	Increasing Demand of Pork Safety	5	4
2	Government Spending	5	4
3	Fast growing Market	5	4
	<b><i>DNVHC's Major Threats</i></b>	<b><i>Seriousness</i></b>	<b><i>Probability of Occurrence</i></b>
1	Competitors	5	5
2	Government Restrictions	5	3
3	Brand Association	5	5

Table 7: Summary of SWOT

## Chapter 14: Strategic Problem Definition

The Strategic Problem Definition (SPD) was developed based on the findings from SWOT analysis, in order to structure the presented strategies better. The authors chose this SPD for DNVHC:

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*How can DNVHC, with the presented challenges and their major strengths, successfully enter the Chinese pork safety market, and what strategies should they exploit in order to gain a favorable position?*

## Chapter 15: Goal Formulation

This stage of the strategic planning process is based on the SPD and the SWOT analysis, and according to Philip Kotler and Kevin Lane Keller, a company should develop specific objectives with respect to importance and time. In order to be able to manage by objectives, the strategic goals are required to meet four criteria<sup>191</sup>:

- Goals must be arranged hierarchically, from the most to the least important
- Objectives should be quantitative whenever possible
- Goals should be realistic
- Objectives must be consistent

The authors chose to divide DNVHC's goals into short-term profit goals (1-3 years) and long-term growth goals (5-10 years).

### 15.1 Short-term profit goals

- Obtain necessary knowledge about market needs
- Identify the target market
- Develop a comprehensive pork safety service
- Enter the Chinese pork safety market quickly
- Secure contracts with clients
- Create brand awareness for DNVHC in the Chinese pork safety market

### 15.2 Long-term growth goals

- Become the leading risk management provider in the Chinese pork safety market
- Enhance brand equity for DNVHC as a provider of pork safety solutions

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<sup>191</sup> Kotler and Keller. 2009: 92-93

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- Continuously put efforts in maintaining government relationships and goodwill
  - Continuously influence stakeholders in pork supply chains to act proactive
  - Establish a food safety division at DNVSC
  - Develop an own pork traceability system

## Chapter 16: Critical Success Factors

Critical Success Factors (CSFs) are essential factors or activities for a company in order to successfully achieve their goals. CSF refers to *the limited number of areas in which satisfactory results will ensure successful competitive performance for an organization*<sup>192</sup>. Identifying these factors is important to direct and measure efforts, because it establishes a point of reference, which can be helpful for the employees<sup>193</sup>. Based on the goals, the authors developed these CSFs for DNVHC:

- Enter the pork safety market quickly
- Good government relationships
- Exceed potential customers' expectation
- Highly competent employees
- Brand equity for DNVHC in China

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<sup>192</sup> <http://rapidbi.com/created/criticalsuccessfactors/>

<sup>193</sup> [http://www.mindtools.com/pages/article/newLDR\\_80.htm](http://www.mindtools.com/pages/article/newLDR_80.htm)



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## Part V – Alternative Strategies and Recommendations

This part of the thesis answers the statement of problem:

*What strategy can DNV Healthcare exploit to position itself as the leading risk management provider in the Chinese pork safety market?*

The authors evaluated three different strategies and based on the selected strategy, an entry strategy was suggested for DNVHC, together with recommendations for positioning and marketing mix.

### Chapter 17: Alternative Strategies

The authors evaluated three possible alternatives for DNVHC's future strategy towards the Chinese pork safety market.

- Alternative 1: *“Enter the Chinese pork safety market”*
- Alternative 2: *“Enter the Chinese pork safety market through a strategic alliance”*
- Alternative 3: *“Do not enter the Chinese pork safety market”*

#### 17.1 Alternative 1

*“Enter the Chinese pork safety market”*

Alternative 1 represents the strategic choice for DNVHC to enter the Chinese pork safety market independently. This could happen in two ways: DNVHC could enter as merely a risk management provider and offer their standard services of for example accreditation and certification. The other option could be to develop a traceability system, so that DNVHC can offer a more comprehensive pork safety solution.

The risk management provider option holds several weaknesses. The most obvious one is that DNVHC will be unable to provide their customers with a full

service; they can only provide certain components of the pork safety solution. However, this would be the least costly option to implement and execute, and DNVHC could view entering the pork safety market as a pilot project with few investments. DNV internationally possesses the knowledge necessary to provide risk management services, but this knowledge must be recruited and adapted to China.

The option of developing a new traceability system requires extensive investments in both time and resources; however, the Chinese market shows a high demand for traceability services. High investments can be viewed as a great risk, but it could also generate huge profits. By implementing this strategy, DNVHC can offer their customers a complete solution for pork safety.

## 17.2 Alternative 2

*“Enter the Chinese pork safety market through a strategic alliance”*

This strategy is suggested because DNVHC wants to enter the pork safety market in China, and at the moment the market is driven by a high demand for pork traceability solutions. DNVHC should be able to offer this type of solution to their clients, and a cost-effective way to do this can be to create a strategic alliance with a food traceability provider. Through a strategic alliance, DNVHC can place their efforts in their core competencies, while getting access to the technology and knowledge that DNVHC currently does not possess in China. This will be a way of satisfying clients’ needs without using a lot of time, in addition to financial-, human- and technological resources, by doing this alone.

Furthermore, it can be beneficial for DNVHC to partner up with a local food traceability provider. Local providers’ knowledge in the market, market shares, *guanxi* and extensive cultural understanding, are all advantages DNVHC can exploit to get a better foothold in this market. In addition, while the pork safety market in China is in rapid growth, this strategy can give DNVHC quick access to this market.

### 17.3 Alternative 3

*“Do not enter the Chinese pork safety market”*

The third alternative strategy focuses on the fact that DNV do not possess their own food safety division at DNVSC; hence they lack experience within the pork safety market in China. Furthermore, DNV’s logo is associated with the maritime industry and in order to create a favorable image that is consistent with DNVHC’s objectives and values, major branding efforts are necessary. The authors perceive this as a significant challenge for DNVHC if they enter the Chinese pork safety market. In addition to this, DNVHC could face high exit barriers because operating in this industry requires high investments and long-term commitment to clients, especially if they develop their own traceability service.

The demand for pork safety is rapidly increasing due to a fast growing market and the rising frequency of food safety incidents revealed in the country.

Consequently, other risk management providers may also see opportunities in the Chinese food safety market. Having this said, the third alternative strategy is also based on the fact that DNVHC may expect to meet high competition if they enter this particular market, which would lead to major positioning challenges for the company.

Although DNVHC has the ability to allocate the resources needed to enter this market, it could be more advantageous to focus their efforts on strengthening their position in the Chinese healthcare market. The current project that DNV-CNHDRC has in doing research on managing risks in the Chinese national healthcare reform is of great importance for DNVHC. This is because it contributes in creating reliability for the company, and building a good relationship with the government, which is important for DNVHC as a relatively new actor in the health sector in China.

Finally, it can be a challenge for DNVHC to convince various stakeholders in the supply chain of pork to undertake a proactive approach when operating to improve pork safety.

## Chapter 18: Choice of Strategy

The authors believe that the second alternative is the most beneficial strategy for DNVHC, as they are a market-oriented company willing to take risks. The food safety market in China is a rapidly emerging market with huge potential and opportunities. Based on the authors' analyses, this is the right moment to enter the pork safety market, as many international trends supporting food safety has already begun in China. DNVHC should take part in this new trend from the very beginning, not only because exploiting opportunities like this is an essential part of DNV's strategy, but also because this includes several early mover advantages. Furthermore, if DNVHC chooses to not enter the Chinese pork safety market at this point of time, they may never get an opportunity to enter in the future; it could be too late.

According to Kotler and Keller, strategic alliances can complement or leverage a company's capabilities and resources. It is important for DNVHC to evaluate potential partners that might enhance strengths and compensate weaknesses<sup>194</sup>. For example, a local traceability partner can further enhance government relations and *guanxi*, as well as contribute with a system for traceability. To establish a strategic alliance, is a way for DNVHC to gain market access in new markets, reduce competition and share resources in R&D<sup>195</sup>. Moreover, sharing of risk and knowledge may pose many advantages. For example, a strategic alliance with a traceability firm can provide DNVHC with extensive knowledge on traceability systems, which can be useful if DNVHC wants to develop their own system in the future.

Entering a new market through a strategic alliance is often the less costly alternative, in addition to being a more time-efficient entry strategy. By entering the Chinese pork safety market with a strategic alliance, DNVHC does not have to develop a new traceability system, which makes the financial investments significantly lower.

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<sup>194</sup> Kotler and Keller. 2009: 94-95

<sup>195</sup> Solberg. 2009: 87

This strategy is the best alternative in terms of meeting customer demands, as they most likely want a comprehensive solution for pork safety. Additionally, by being able to offer a complete solution, it may be easier to convince potential customers that they need this service, and that DNVHC is the best provider for pork safety solutions. As the analyses reveal, a big problem in China today is the reactive approach to dealing with food safety issues.

This alternative also poses better prospects of enhancing the DNVHC brand image in China, not only because they are more exposed, but also because of the partnership with a local provider.

In subchapter 9.4, the authors discussed the meaning of contract in a Chinese context. Due to the fact that the Chinese counterpart often expects the first drafts of an agreement to be open for negotiation, DNVHC should have great margins in their opening offer. Furthermore, when choosing a partner, it is also important for DNVHC to take principal-agent theory into consideration. This implies that DNVHC must be aware of the fact that a potential partner may behave opportunistic. To avoid pre-contractual opportunistic behavior, DNVHC must try to uncover hidden information and intentions that their potential partner may have, before signing an agreement.

To prevent the partner from having post-contractual opportunistic behavior, DNVHC should seek to create duality: a relationship that allows both parties to take part in decision-making. This will contribute to establish a joint organizational culture with shared goals and values. In addition, DNVHC needs to find control mechanisms that stimulate to a behavior that is consistent with their goals and desires<sup>196</sup>.

The authors also chose to define what DNVHC's role as a third-party company should be when entering this new market with a strategic alliance. The conclusion was that DNVHC should focus on their core competencies, and continue to provide risk management services. For instance, they should design and formulate the standards, train and educate people in the supply chains, implement the standards, oversee and control. By being responsible for doing all these stages in

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<sup>196</sup> Solberg. 2009: 245-247

ensuring pork safety, DNVHC can more clearly distinguish themselves from competitors. Moreover, this may increase entry barriers for potential new entrants.

In the following chapters of this thesis, the authors give recommendations for execution and implementation of Alternative 2 based on the previous analyses of DNVHC.

## Chapter 19: Entry Strategy

Based on the authors' internal and external analyses of DNV, they possess many resources and are present in the global market. Solberg suggests that companies that find themselves in this situation should enter new markets quickly and decisively. Based the choice of alternative strategy, the authors recommend DNVHC to establish a strategic alliance. According to Solberg, the most common forms of alliances among Norwegian enterprises are *distribution collaboration*, *part-ownership*, *joint venture*, *license production*, *mutual ownership* and *consortium*<sup>197</sup>. The authors recommend a consortium in the form of a *partnership* for DNVHC. As mentioned in the choice of strategy, it would be of high value for DNVHC to get a partner that provides traceability services. Together with market access, a partnership of this kind could also add value to DNVHC's pork safety services in China, which is important in order to meet market demands. Moreover, strategic alliances can add the technological strengths that DNVHC needs in order to satisfy potential customers. This kind of partnership can help DNVHC to overcome entry barriers in the industry, and limit investment exposure by sharing risk.

Finally, in a strategic alliance, it is important to choose a partner that does not weaken DNVHC's core competencies. DNVHC's strategic strengths should not be compromised in order to make a partnership successful<sup>198</sup>.

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<sup>197</sup> Solberg. 2009: 295-297

<sup>198</sup> Simchi-Levi, Kaminsky and Simchi-Levi. 2003: 147-148

## Chapter 20: Positioning

A company needs to characterize its category membership and target market before defining the fitting POPs and PODs associations<sup>199</sup>.

### 20.1 Category Membership

Determining category membership is a good starting point when defining a competitive framework to position a brand. It refers to the products or services, which a brand competes with. DNVHC competes with services like accreditation, certification and risk management. If they enter the Chinese pork safety market, they need to include traceability solutions in their service portfolio in order to serve the market demand.

### 20.2 Target Market

On the basis of the conducted analyses and the findings in this thesis, the authors have chosen to define DNVHC's target audience as the local Chinese governments and large retail chains. The authors are aware that potential customers can be found throughout the pork supply chain, but they chose to emphasize the retail segment on the basis of what can be expected from international trends. As mentioned, this segment possesses a high degree of power in their supply chains, which further leads to a high ability to influence other actors. By targeting this segment, it is a higher probability that DNVHC's services can act as a benchmark for the entire supply chain of pork.

### 20.3 Differentiation

As stated in the competitor analysis where Porter's Generic Strategies are applied, DNVHC pursues a differentiation strategy where they focus on high quality and high price. The authors suggest that DNVHC should continue to utilize this strategy for their pork safety services. Furthermore, the authors propose that DNVHC differentiates based on *Service*, *Relations* and *Personnel*. In order to

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<sup>199</sup> Kotler, Keller and Lu. 2009: 219

brand a product or service, it must be differentiated<sup>200</sup>. Recommendations on how they should differentiate themselves based on these factors, and other marketing mix elements, will be addressed in chapter 21.

## 20.4 Category Points-of-Parity

Category POPs are those associations that consumers find as necessary to be a legitimate and credible offering within a certain category<sup>201</sup>. The authors perceive that DNVHC should be associated with the following category POPs in the pork safety market:

- *Legitimacy*. When working with certification and implementation of safety standards in the pork market, it is important for DNVHC to focus on the fact that they, like their competitors, are accredited by the government, in order to be perceived as a legitimate risk management company.
- *Safety*. DNVHC needs to associate themselves with their commitment to safeguard life, property and the environment, to convince potential customers that they can secure pork safety throughout their supply chains.
- *Internationally approved standards*. Like their competitors, it is important for DNVHC to offer implementation and certification of the most common internationally recognized food safety standards.
- *Knowledge*. To attract customers, DNVHC must position themselves as a company with great knowledge about the pork safety needs that exist in the market, and how to satisfy these needs.
- *Customer service*. DNVHC must ensure that the associations of their products include customer services, such as assisting with implementation, supervision and follow-up.
- *High-quality products*. To make sure that DNVHC is associated with high-end brands in the pork safety category, they need to create awareness on their high-quality services.
- *Professional and skilled employees*. Stakeholders in the market trust that professional and skilled staff will help them implement and supervise the

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<sup>200</sup> Kotler and Keller. 2009: 361

<sup>201</sup> Kotler, Keller and Lu. 2009: 219



purchased services, and due to this, DNVHC's employees' expertise must be highlighted in their marketing.

## 20.5 Competitive Points-of-Parity

DNVHC can use competitive POPs to neutralize the competitors' PODs<sup>202</sup>.

- *Traceability services.* As the authors mentioned in the competitor analysis, some of the competitors provide traceability solutions. To neutralize this, DNVHC needs to make sure that they have access to this technology, and use this in their positioning strategy.
- *Western brand.* Chinese consumers tend to associate Western brands with quality and credibility. Due to this, DNVHC should emphasize that they are a Western brand with international experience.
- *CSR.* CSR is an important part of DNV's overall strategy. DNVHC should highlight how they manage people, their impact on the environment, their responsible business conduct and relations with society at large.

## 20.6 Points-of-Difference

Strong, favorable and unique brand associations that should make up the PODs for DNVHC are considered by the authors to be:

- *Highest level of product-quality.* DNVHC will offer only top-level quality on their services, so that the customers conceive DNVHC as a high-class pork safety provider. This will be consistent with DNVHC's product-quality in other sectors.
- *High price.* The price on services should be consistent with product-quality, and DNV's overall pricing strategy. DNVHC should therefore communicate that they have a high price on their pork safety services.
- *Comprehensive pork safety solutions.* Communicating that DNVHC can offer full solutions will be important in a positioning strategy as a way of distinguishing themselves from competition.
- *Sustainability.* DNV has assisted China in setting up several sustainability standards and practices. DNVHC can harvest positive associations if they

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<sup>202</sup> Kotler, Keller and Lu. 2009: 219

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communicate that they are a contributor of sustainable solutions for Chinese pork safety.

- *Excellent customer service.* This will be crucial in many aspects, as DNVHC is a consulting firm. By being available to their customers at all times and following up potential problems fast and continuously, are vital services that DNVHC should execute flawlessly.
- *Trust.* DNVHC assists the Chinese government in several aspects of the new healthcare reform, and this contributes to trust and integrity for the company. This trust should be emphasized in the positioning strategy, in order to gain positive associations to the DNVHC brand.
- *Long experience in the Chinese market.* Due to DNV's longevity in the Chinese market, they possess experience and knowledge that can distinguish them from competitors. DNVHC can use this advantage in their positioning strategy in order to create favorable associations.

## Chapter 21: Marketing Mix

Services have four characteristics that have great impact on how the marketing mix is designed. Because services are *intangible, inseparable, variable* and *perishable*, the traditional four P's *Product, Price, Promotion* and *Place*, are extended to additionally encompass *People, Process* and *Physical Evidence*<sup>203</sup>.

In DNVHC's marketing efforts, they should emphasize on their PODs, like for instance having the highest level of product quality on their comprehensive pork safety solutions, excellent customer service, longevity in the Chinese market and government trust. To neutralize competitors' PODs, DNVHC should focus on their CSR and traceability services, as well as the fact that they are a Western brand.

The authors chose to exclude *Place* in DNVHC's marketing mix for the reason that they are not engaged in storing and distribution of tangible goods to

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<sup>203</sup> Olsen, 2008: 15

consumers. Consequently, the authors found *Physical Evidence* more relevant, as DNVHC provides services.

## 21.1 Product

Kotler and Keller distinguish between five categories of offerings:

1. Pure tangible good
2. Tangible good with accompanying services
3. Hybrid
4. Major service with accompanying minor goods and services
5. Pure service

In the authors' choice of strategy and entry strategy, DNVHC will enter a partnership with a traceability provider, and thus their product will fall under category number four. Furthermore, their food safety solutions can be defined as *people-based services* provided by *professional workers*<sup>204</sup>. The authors chose to look at DNVHC's total service product as a result of the three components illustrated below<sup>205</sup>:

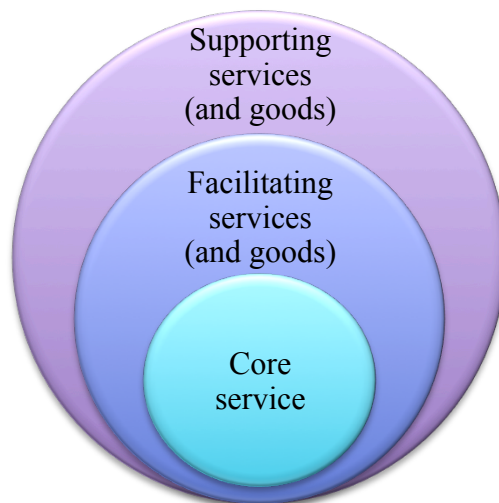


Figure 16: Three Service Levels. Source:

<http://www.marketing.org.au/images/cimages/servmark.pdf>

<sup>204</sup> Kotler and Keller. 2009: 387-388

<sup>205</sup> <http://www.marketing.org.au/images/cimages/servmark.pdf>

While DNVHC's *core service* is their reason for being in the market; pork safety, *facilitating services* are the ones that will assist the use of their core service, for instance food safety standards, certifications and traceability solutions.

Their *supporting services*, on the other hand, have different purposes and will be the ones that enhance value for their customer and/or distinguish them from competitors<sup>206</sup>. Because DNVHC's services are *human-based*, the authors believe that it is DNVHC's employees who are able to increase customer satisfaction and thus they constitute the third layer of their total service product. Based on the conclusions presented in subchapter 20.3, DNVHC should differentiate their services based on service, relations and personnel. Additionally, due to the uniqueness of services that the authors stated in the introduction of the marketing mix, services require more quality control, supplier credibility and adaptability<sup>207</sup>.

## 21.2 Price

Kotler, Keller and Lu propose several pricing methods based on the customers' demand schedule, the cost function and competitors' pricing: *markup pricing*, *target-return pricing*, *perceived-value pricing*, *value pricing*, *going-rate pricing* and *auction-type pricing*. In the *perceived-value pricing* strategy, companies base their price on their customers' perceived value of the product. Companies choosing this strategy use marketing-mix elements to communicate and enhance the perceived value in buyers' minds. For *value buyers*, which DNVHC's potential customers are regarded as, it is important to continuously improve the delivered value. The key is to deliver higher value than competitors and effectively communicate this to potential customers<sup>208</sup>. Based on internal analysis, the authors determined that DNVHC has a differentiation strategy with focus on high quality and high price. The authors also regard that exceeding potential customers' expectations is a CSF for DNVHC in the Chinese pork safety market.

These arguments support that DNVHC should choose the *perceived-value pricing* strategy, for their pork safety services in China. This strategy is consistent with

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<sup>206</sup> <http://www.marketing.org.au/images/cimages/servmark.pdf>

<sup>207</sup> Kotler and Keller. 2009: 360

<sup>208</sup> Kotler, Keller and Lu. 2009: 351-354

DNV's overall pricing strategy, and although the authors do not have sufficient information to suggest a specific price for pork safety services, DNVHC should charge a high price in this market as well.

### 21.3 Promotion

According to Kotler, Keller and Lu,

*Marketing communications are the means by which firms attempt to inform, persuade, and remind consumers, directly or indirectly, about the products and brands that they sell.*

Marketing communications can contribute to brand equity by creating brand awareness, establish a brand image, obtain brand responses, and/or promote a stronger consumer-brand connection. The authors concluded that establishing brand equity is a CSF for DNVHC in order to become successful in the Chinese pork safety market; hence the promotional mix is vital. The marketing communications mix consists of eight major communication techniques: *advertising, sales promotion, events and experiences, public relations and publicity, direct marketing, interactive marketing, word-of-mouth marketing and personal selling*<sup>209</sup>.

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<sup>209</sup> Kotler, Keller and Lu. 2009: 434-435

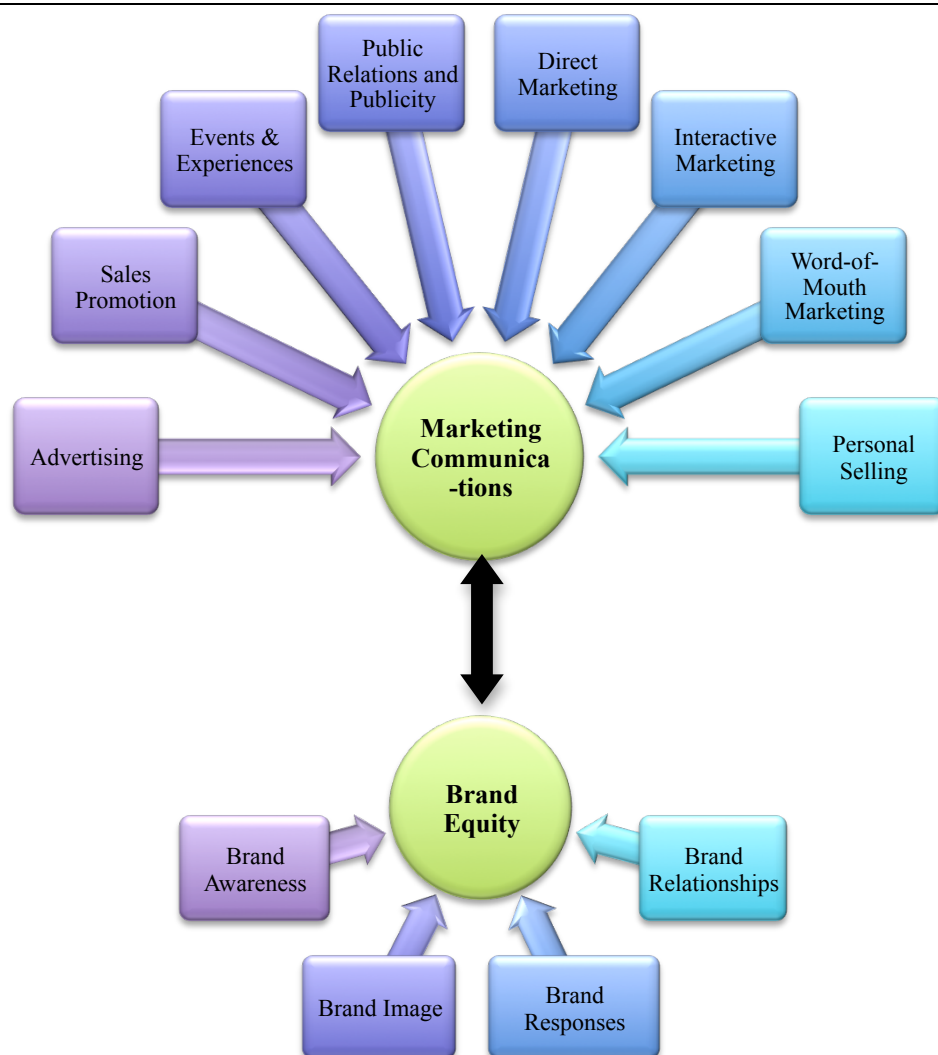


Figure 17: Marketing Communications to Build Brand Equity. Source: Kotler, Keller and Lu. 2009: 434

The authors found *sales promotion*, *public relations and publicity*, *interactive marketing* and *personal selling* as the most useful communication tools for DNVHC to promote their pork safety services.

### 21.3.1 Sales Promotion

Sales promotions are typically short-term incentives meant to encourage trial or purchase of a product or service. DNVHC should focus on attending fairs, trade

shows and exhibitions<sup>210</sup>, as a way of meeting potential customers and interact with them.

DNVHC is a gold sponsor at the International Food Safety & Quality Conference + Expo in Beijing in November 2011. This is a good arena for meeting clients and promoting DNVHC as a pork safety provider. Being a gold sponsor can stimulate to positive Word-of-Mouth for DNVHC, which helps strengthen brand equity<sup>211</sup>.

Other fairs, trade shows and exhibitions DNVHC should attend, are the Food Safety Testing Instruments and Equipment Exhibition in Guangzhou in August 2011<sup>212</sup>, and the VIV China in Beijing in September 2012. The VIV China exhibition covers entire food chains, and presents industry trends and technologies to guarantee quality and safety<sup>213</sup>.

### 21.3.2 Public Relations and Publicity

*Public Relations is a distinctive management function which helps establish and maintain mutual lines of communications, understanding, acceptance, and cooperation between an organization and its publics*<sup>214</sup>.

Public Relations (PR) are of great importance for DNVHC in order to communicate, protect and promote their image and services. Publishing newsletters, annual reports and press releases on their web site, is a crucial way for DNVHC to communicate their messages to stakeholders. DNVHC can exploit publicity without any media costs, as many food-related web sites, newspapers and magazines are writing about the rising food safety issues<sup>215</sup>. When DNVHC becomes a pork safety provider, they can use PR to stimulate awareness on these arising issues.

In Chinese business culture, where it is necessary to have good *guanxi*, it can be especially beneficial for a company to have good relationships with the government, like DNVHC has. To have community relations can give DNVHC a

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<sup>210</sup> Kotler, Keller and Lu. 2009: 435-436

<sup>211</sup> <http://www.chinafoodsafety.com/>

<sup>212</sup> <http://www.tradeshowalerts.com/agro-food-products/food-safety-testing-instruments-and-equipment-exhibition-guangzhou-2011.html>

<sup>213</sup> <http://www.imexmanagement.com/show/46/viv-china-2012/>

<sup>214</sup> Seitel. 2007: 4

<sup>215</sup> Seitel. 2007: 11

lot of opportunities businesswise if they maintain important connections. As mentioned in subchapter 8.1, the Chinese government will put a lot of effort on improving food safety in China, and DNVHC should utilize lobbying to become a part of the governments projects. Lobbying can also be an effective way to stay updated on future governmental legislations and actions<sup>216</sup>.

CR is an important part of DNVHC's strategy; hence the company should continue to use CSR as a vital publicity tool. The authors perceived DNVHC's CSR as a competitive POP, and because they are acting in the health- and food safety sector, it is crucial to emphasize how DNVHC never compromises on quality or integrity. To build brand equity, DNVHC should through their CSR activities promote how they care about environmental activities, employees' safety and health, responsible business practices and ethics, and external relations. The latter alludes in particular to governmental relations<sup>217</sup>.

### *21.3.3 Interactive Marketing*

DNVHC can utilize this communication tool to engage customers in order to raise awareness, improve image or induce sales of their services. Interactive marketing are typically online activities and programs<sup>218</sup>, and the Internet should be an important channel for DNVHC to promote their new pork safety services. Currently, information about DNV's different services are accessible from their corporate web site, where there is a direct link where interested parties can request more information, meetings and so on. DNVHC should offer the same online activity for their comprehensive pork safety solutions.

### *21.3.4 Personal Selling*

Face-to-face interactions with potential customers are very important for DNVHC, as sales presentations, sales meetings and answering questions<sup>219</sup> will be crucial in order to secure buyers. In order to ensure successful personal selling, the peoples' performance is essential. This will be further addressed in the next subchapter.

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<sup>216</sup> Seitel. 2007: 282

<sup>217</sup> Seitel. 2007: 116

<sup>218</sup> Kotler, Keller and Lu. 2009: 435

<sup>219</sup> Kotler, Keller and Lu. 2009: 436



## 21.4 People

As mentioned earlier in this thesis, the authors defined DNVHC's most sustainable competitive advantage as the knowledge and experience of their employees. The people who are involved in the delivery of DNVHC's services are highly skilled employees, and they represent a POD for the company. The clients will have different perceptions and judgments of the service based on who is delivering it. Due to this, it is critical that DNVHC's workforce possess suitable interpersonal skills, service attitude and ability to adapt, in addition to top-level expertise. This will contribute to create value for the customer, and enhance DNVHC's workforce as a POD.

## 21.5 Process

The service process of delivering pork safety solutions will be dependent on the systems used to deliver efficient and effective services. In addition to implementation and certification of standards, DNVHC must provide software-systems that are reliable and solid, in order to make pork traceability possible. By providing a system that meets these requirements, DNVHC contributes to make this reactive approach as efficient as possible, if pork safety incidents occur. Additionally, this increases the probability that clients associate DNVHC as a provider of comprehensive pork safety solutions<sup>220</sup>.

## 21.6 Physical Evidence

When a client participates in negotiating and purchasing DNVHC's services, the authors perceive that this usually takes place at DNVHC's office at DNVSC. The facilities at DNVSC are designed to fit with the company's business visions, and this contributes in making the physical evidence compliant with clients' expectations when purchasing services from DNVHC. However, when DNVHC is performing their services, it typically takes place at the client's facilities. Due to this, the client cannot make any judgments on DNVHC based on the physical environment where the services are delivered. When DNVHC decides to add traceability solutions to their service portfolio, the physical evidence of this

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<sup>220</sup> <http://www.mba-tutorials.com/marketing/459-service-marketing-mix.html>

service will take place online. This means that it is important for DNVHC to develop a platform that is easy to use and signals their quality, professionalism and overall business visions.

## **Chapter 22: Future Recommendations**

The authors listed *establish a food safety division at DNVSC* as a long-term growth goal for DNVHC. After gaining a foothold in the Chinese pork safety market, DNVHC can expand their services to be applicable for other industries within food safety. This should be done by creating a food safety unit, and this new DNVFS division should develop their own pork safety traceability system, which also was listed as a long-term growth goal. Furthermore, this pork traceability system should be adaptable to other food chains, especially supply chains of other kinds of meat.

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## Chapter 24: Appendix

### 24.1 Appendix 1

